Clinical Lecture
ON
CASES OF ANOMALOUS RHEUMATIC FEVER.

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GENTLEMEN,—I call your attention to-day to some cases which I think are very important subjects of study. I designate them "anomalous" rheumatism because they differed very materially in their progress from ordinary examples of that malady. Their course was not even (not ὁμαλὸς), but irregular. Diseases have mostly a form and course which they observe—a norm of their own,—and deviations from it bode no good. So long as the symptoms follow the usual and orderly evolution, though they may be severe and even perilous, we are not at fault—we know what to expect and how to act; but when unusual and strange symptoms arise, when danger threatens, now from one quarter and then from another, we are prone to get perplexed and lose our heads. Articular rheumatism, though severe, confined to the joints, or with but moderate cardiac complication, is a tolerably straightforward matter; but rheumatic fever with little joint affection, and much delirium, hyperpyrexia, or lung œdema, is quite a different thing.

CASE 1. *Articular rheumatism of small amount; more prominent pericardial, pleuritic, pulmonary, and intestinal inflammatory disorder; morbilloid eruption copiously developed, followed by sudamina, some delirium, persistent hyperpyrexia.*—A. S——, aged thirteen, errand-boy, was admitted on Dec. 17th, 1880. His mother died of phthisis, and one brother also; another, aged four, died of measles; two sisters are living, one of whom is weak. Three months ago he was struck by a stone over the left eye, and has never been well since. Had always been delicate, but never had any special illness. On Dec. 7th he felt unwell, and on the 10th he had to leave his work, complaining of pain in his limbs and in his right side. On the 13th he had pain in the back; he gradually grew worse, and was admitted into hospital. He is a thin, weakly-looking boy; his feet and hands are swollen and painful, and pericardial friction is heard. Dulness on left side extends from third space to sixth rib, and from mid-sternum to apex, which is situated in fourth space outside vertical nipple-line. Dulness in first left space is less absolute than in the second and third. Sternum is dull up to about level of the second rib; laterally dulness extends to about right edge of sternum, and to the left about half an inch beyond right nipple line. Harsh, grating friction sound heard from the level of the second space down to the fifth rib; is less distinct below than higher up; it is well heard in upper left front. Breathing in upper left front is harsh and imperfect; in the lower left back breathing is harsh, and rather weak, attended with crepitation and rhonchus; in the upper left back the breathing is better; the right back in the same state as the left. He lies on the right side; heart's impulse better seen than felt; abdomen moves very little in respiration; area of hepatic dulness normal; no splenic enlargement.—19th: Delirious all night, getting out of bed; takes plenty of nourishment, milk, and beef-tea; lower ribs move well; pulse 114, soft; bowels open four times, the stools very light-coloured; no spots. To take five grains of salicylate of soda, four minims of sedative solution of opium, and an ounce and a half of chloroform water, every four hours; five grains of chloral, ten grains of bromide of potassium, and an ounce of camphor mixture, every night.—20th: Had two doses of the sedative; slept much better, and had less delirium.—23rd: Pulse 116, soft; respiration 33; lies down well. The icebag to præcordia ordered on the 21st is continued; he likes it; it is applied a good deal. Friction sound still evident; dulness extends nearly to the top of the sternum; tongue red and moist, coated. He complains of pain across chest and belly, which latter is large and tympanitic, and moves but little. Urine red, thick, loaded with lithates, sp. gr. 1032, contains albumen. Cardiac impulse is felt most distinctly in fourth space. At midnight, being very restless and wandering, in spite of half a grain of opium every four hours, and the temperature being 104·5°, he had fifteen grains of quinine. At 2 A.M. the temperature fell to 102°; at 4 A.M. it rose to 104°; at 6 A.M. fell to 101°, and at 8 A.M. to 99°. He slept better after the quinine. On the night of the 22nd he had two enemata of fifteen minims of tincture of opium on account of diarrhœa and wandering.—26th: At 2.30 P.M. the pulse was 114; temperature 101°; respiration 28; was delirious in the night, but takes nourishment well; has pain across the chest. Had much diarrhœa after fifteen grains of salicylate of soda every hour (six times last evening). Quinine repeated at 11 P.M.; tongue very dry and red; sternum resonant down to the third rib, left front also more resonant; urine pretty copious. To take five grains of disulphate of quinine every four hours; four ounces of brandy; continue opium pill every four hours.—28th: Slept well during last night; eyelids swollen and puffy, and nose also; a rash has appeared on chest, neck, shoulder, and upper arms, scarcely seen on abdomen or lower limbs, absent from face; it is of a dull red colour, consists of spots and short streaks, tending to coalesce, scarcely elevated, with interspaces of natural colour. Abdomen large; bowels open twice; stools loose, but not so loose as they have been. Heart's apex beats in fifth space well within vertical nipple-line; no murmur; sounds well heard at fifth space. Shrill tube-sounds of small size, inspiratory and expiratory, over all left front, much less marked in right front, where air enters well, producing vesicular murmur. In the right back there is extensive dulness, occupying more than the lower two-thirds of the back; in this region the entry of air is very weak, and scarcely anything is heard but muco-crepitant râles. In the left back dulness is less extensive; air enters tolerably at upper fourth, but very defectively in lower half, where numerous crepitations are heard. Urine in fair quantity, clear, not albuminous. Ice-bag applied pretty regularly until to-day, when it was omitted.—29th: Last evening, the temperature being 105°, at 8 o'clock and at 10 he had a bath cooled down with ice. The temperature fell to 101° before he left it; rash quite disappeared. The temperature at 11.30 P.M. was 100·2°; pulse 112; respiration, which before the bath was about 40 and laboured, fell to about 30, and was much easier. At 2 A.M. (29th), the temperature having reached 105·6°, he had a second bath, after which the temperature fell to 98·8° at 4 A.M. The rash at 6 A.M. was a very bright red, and all over the face. At 2.30 P.M. he was quite rational; pulse 110. The rash was visible on the thighs, as a rather faint flush in some parts, in others as a mottling. A third bath was given at this time. The temperature, which was 104·6° before the taking of the bath, soon after fell to 100°. Pulse 120, small and weak. At 3.10 P.M. the temperature was 97°.—31st: Friction-sound ceased; sternal dulness commences at about third cartilage; in left front the third space is dull, the second half resonant, and the first quite. Pulse 102, distinct. Weak entry of air in all the right back; a good many small, incomplete crepitations are heard. In the left back air enters more freely, and crepitations are more developed. Night bad. No bath since 10 A.M. of 30th. One grain of opium at bed-time.

Jan. 1st, 1881: Has had more hyperpyrexia; three baths have been given; he was very restless and thirsty before; shivered very much after the first bath, and was very prostrate; had to be removed soon from bath and take brandy. Subsequently cold sponging was had recourse to, when the temperature ran high; opium did not quiet him, but he slept after the bath. Eruption gone; tongue very dry. No deafness. Pulse 110, distinct; respiration 45. Air enters, but imperfectly, in both backs, especially at lower parts; some dulness near bases; some sickness. Omit the quinine.—4th: Slept well with fifteen minims of tincture of opium in enema at eight P.M. last evening; was extremely restless before. Pulse 130, weak. Takes food well. Lower ribs expand well. Yesterday air entered well in both backs, producing numerous crepitations; no murmurs. Has several red papules, much larger and more raised than those of typhoid, at left iliac region, and a few elsewhere. A bedsore threatens to form on left hip. Only one bath given since the 1st. Rheumatism is reappearing in some of his joints. Half a grain of opium given as circumstances require. 7th: Is very thirsty when restless fits come on; a copious crop of sudamina on chest. Pulse 108, distinct. Large intestine much distended; belly large. Bowels open twice; perspires very freely. Feet are swollen and painful; he cannot bear to have them moved. One grain of calomel to be given at night, five grains of Dover's powder, and half an ounce of acetate of ammonia mixture three times a day.—9th: Pre-

vious night rather restless, though he had opiate enema. Ordered ten grains of disulphate of quinine to be taken at 6 P.M., and again at 7 P.M. About 9.30 P.M. he had a rigor, and was very sick and vomited, and bowels acted in bed. Face flushed; no headache. Respiration 42, moans; pulse 135, rapid and running. Picks his nose constantly. Has been very restless and excitable all the evening; complains of constant pain in dorsal region of back, and holds himself rigidly. No pains in joints; mind quite clear at present; belly very tympanitic; trunk covered with sudamina; pupils natural. Temperature 105°. Sponging. Fifteen minims of tincture of digitalis, three grains of carbonate of ammonia to half an ounce of water every four hours.—10th: Omit mixture, add fifteen minims of tincture of digitalis to each dose of acetate of ammonia mixture, with Dover's powder.—13th: Pulse 100; temperature normal. Bowels loose; stools fully bilious.—15th: Makes a miserable whining noise all night long, disturbing the other patients. Takes food very well. Tongue and mouth clean; pulse 96. Fifteen minims of tincture of digitalis, three grains of carbonate of ammonia, one drachm of tincture of cinchona, and one ounce of the decoction of cinchona three times a day.—19th: Slept much better, better than he has yet. Much pain on movement. Takes food well. Has a bedsore at bottom of sacral region; it commenced as an angry pimple, which he picked, so he has others, but only this has come to a sore. The next day there was a deep hole, exposing a sacral spine, where the bone was felt denuded. He was ordered to be kept lying on his face, and the wound to be dressed with carbolic lotion under oil silk and tenax.—26th: Sore stationary. Bowels very irritable, act after any ingesta two or three times in an hour, then become quiet again for some time. Gets irritable and restless at times; would have no sleep but for subcutaneous morphia. He was ordered five grains of oxide of zinc and one quarter of a grain of opium four times a day. This did not succeed in quieting the bowels; sickness came on, and after two or three days the powders were omitted. On Jan. 31st he was ordered one drachm of malt extract, with cod-liver oil.

On Feb. 3rd the digitalis mixture was omitted.—15th: He is very much improved, the sore on sacrum is all but healed; the denuded bone seems covered. He is much more cheerful, but becomes restless and very thirsty at night occasionally, drinks copiously, then becomes quiet and sleeps. He has not had an attack of this kind for a week until last night.

TEMPERATURE TABLE. (CASE 1.)

Date.	T. A.M.	T. P.M.
Dec. 17	—	101·8°
,, 18	103·8°	104
,, 19	—	101·4
,, 20	103·4	103
,, 21	103·2	104·5
,, 22	103·2	102 °
,, 23	102·4	104·5
,, 24	99.	104·5
,, 25	102·6	103–104·5

Date.	Temp.
Dec. 25 ... 5 P.M.	104·2°
,, ... 6 ,,	103
,, ... 7 ,,	103
,, ... 8 ,,	102·4
,, ... 9 ,,	102
,, ... 10 ,,	103·6
,, ... 11 ,,	104·6[2]
,, ... 12 ,,	104·6
Dec. 26 ... 1 A.M.	104
,, ... 2 ,,	102·6
,, ... 4 ,,	101·6
,, ... 6 ,,	100·8
,, ... 8 ,,	103·2
,, ... 10 ,,	105
,, ... 2 P.M.	101
,, ... 4 ,,	102
,, ... 7 ,,	104
,, ... 9 ,,	104
,, ... 10 ,,	101·6
Dec. 27 ... 1 A.M.	100·2
,, ... 2 ,,	100·2
,, ... 4 ,,	99·8
,, ... 6 ,,	104
,, ... 8 ,,	102·2
,, ... 10 ,,	101

Date.	Temp.
Dec. 27 ... 12 A.M.	101°
,, ... 2 P.M.	101·8
,, ... 4 ,,	101·4
,, ... 6 ,,	101·2
,, ... 8 ,,	100·4
,, ... 10 ,,	100
,, ... 12 ,,	101
Dec. 28 ... 2 A.M.	104·8
,, ... 4 ,,	104·6
,, ... 6 ,,	103
,, ... 8 ,,	103
,, ... 10 ,,	102
,, ... 12 ,,	102·4
,, ... 2 P.M.	103
,, ... 4 ,,	102·6
,, ... 6 ,,	103
,, ... 8 ,,	102·4
,, ... 10 ,,	101
,, ... 12 ,,	101
Dec. 29 ... 2 A.M.	105·6[3]
,, ... 4 ,,	98·8
,, ... 6 ,,	104·6
,, ... 8 ,,	105·2
,, ... 10 ,,	104·8
,, ... 11 ,,	103·6

Date.	Temp.
Dec. 29 ... 12 A.M.	105·2°
,, ... 2 P.M.	104·6[3]
,, ... 3 ,,	97
,, ... 4 ,,	99
,, ... 6 ,,	104[3]
,, ... 6½ ,,	100
,, ... 7 ,,	97
,, ... 8 ,,	100·4
,, ... 10 ,,	103·6
,, ... 12 ,,	105[3]
Dec. 30 ... 2 A.M.	102·4
,, ... 4 ,,	104
,, ... 6 ,,	103
,, ... 8 ,,	104[3]
,, ... 10 ,,	99
,, ... 12 ,,	101·6
,, ... 2 P.M.	103
,, ... 4 ,,	103·4
,, ... 6 ,,	103·8
,, ... 8 ,,	103·6
,, ... 10 ,,	103
,, ... 12 ,,	103
Dec. 31 ... 2 A.M.	103·2
,, ... 4 ,,	103·2
,, ... 6 ,,	103·4
,, ... 8 ,,	102
,, ... 10 ,,	102
,, ... 12 ,,	100·6
,, ... 2 P.M.	100
,, ... 4 ,,	101·8
,, ... 6 ,,	102
,, ... 8 ,,	101·4
,, ... 10 ,,	101
,, ... 12 ,,	102·2
Jan. 1 ... 2 A.M.	105[3]
,, ... 2½ ,,	98
,, ... 4 ,,	102
,, ... 6 ,,	105[3]
,, ... 6½ ,,	99·6
,, ... 8 ,,	102·8
,, ... 10 ,,	104[3]
,, ... 12 ,,	99·4
,, ... 2 P.M.	102·8
,, ... 4 ,,	102·6
,, ... 6 ,,	103·8
,, ... 10 ,,	101
,, ... 12 ,,	104·2[3]
Jan. 2 ... 12½ A.M.	96·6
,, ... 2 ,,	103
,, ... 4 ,,	102
,, ... 6 ,,	102·4
,, ... 8 ,,	101·6
,, ... 10 ,,	103
,, ... 12 ,,	103
,, ... 2 P.M.	103·6
,, ... 4 ,,	102·8
,, ... 6 ,,	102·4
,, ... 8 ,,	100·8
,, ... 10 ,,	100
,, ... 12 ,,	101
Jan. 3 ... 2 A.M.	104·8
,, ... 4 ,,	104·6
,, ... 6 ,,	103
,, ... 8 ,,	103
,, ... 10 ,,	102
,, ... 12 ,,	102·4
,, ... 2 P.M.	103
,, ... 4 ,,	102·6
,, ... 6 ,,	103
,, ... 8 ,,	102·4
,, ... 10 ,,	101
,, ... 12 ,,	101
Jan. 4 ... 2 A.M.	103
,, ... 4 ,,	104
,, ... 6 ,,	103·6
,, ... 8 ,,	103
,, ... 10 ,,	101·4
,, ... 12 ,,	100·6
,, ... 2 P.M.	101·2
,, ... 4 ,,	101
,, ... 6 ,,	101·6

Date.	Temp.
Jan. 4 ... 8 P.M.	101·6
,, ... 10 ,,	102·4
,, ... 12 ,,	103·8
Jan. 5 ... 2 A.M.	103
,, ... 4 ,,	102·6
,, ... 6 ,,	102
,, ... 8 ,,	101·4
,, ... 10 ,,	100·6
,, ... 12 ,,	101·6
,, ... 2 P.M.	103
,, ... 4 ,,	101·6
,, ... 6 ,,	101
,, ... 8 ,,	102·6
,, ... 10 ,,	103
,, ... 12 ,,	101
Jan. 6 ... 2 A.M.	101·2
,, ... 4 ,,	102·8
,, ... 6 ,,	102·6
,, ... 8 ,,	102
,, ... 10 ,,	101·6
,, ... 12 ,,	100·6
,, ... 2 P.M.	100·8
,, ... 4 ,,	101·6
,, ... 6 ,,	102
,, ... 8 ,,	102·6
,, ... 10 ,,	103
,, ... 12 ,,	102·6
Jan. 7 ... 2 A.M.	103
,, ... 4 ,,	102·2
,, ... 6 ,,	102
,, ... 8 ,,	101
,, ... 10 ,,	100·6
,, ... 12 ,,	101
,, ... 2 P.M.	99·4
,, ... 4 ,,	100·6
,, ... 6 ,,	101
,, ... 8 ,,	101·2
,, ... 10 ,,	102·6
,, ... 12 ,,	103·4
Jan. 8 ... 2 A.M.	103·6
,, ... 4 ,,	103
,, ... 8 ,,	101
,, ... 10 ,,	99
,, ... 12 ,,	98·6
,, ... 2 P.M.	98·6
,, ... 4 ,,	98·8
,, ... 6 ,,	98
,, ... 8 ,,	99·4
,, ... 10 ,,	100·8
,, ... 12 ,,	102·2
Jan. 9 ... 2 A.M.	104
,, ... 4 ,,	104
,, ... 6 ,,	104
,, ... 8 ,,	100
,, ... 10 ,,	100·4
,, ... 12 ,,	98·6
,, ... 2 P.M.	99
,, ... 4 ,,	98·8
,, ... 6 ,,	98·8[4]
,, ... 8 ,,	100[4]
,, ... 10 ,,	103·6
,, ... 12 ,,	105
Jan. 10 ... 2 A.M.	104·8[5]
,, ... 4 ,,	102·6[5]
,, ... 6 ,,	105
,, ... 8 ,,	104
,, ... 10 ,,	104·6
,, ... 12 ,,	103·2
,, ... 2 P.M.	101·6
,, ... 4 ,,	102
,, ... 6 ,,	101·6
,, ... 8 ,,	101·4
,, ... 10 ,,	101·6
,, ... 12 ,,	102
Jan. 11 ... 2 A.M.	102·4
,, ... 4 ,,	101·8
,, ... 6 ,,	101
,, ... 8 ,,	100·6
,, ... 10 ,,	99
,, ... 12 ,,	99·8
,, ... 2 P.M.	99

[1] Six doses of salicylate of soda.
[2] Fifteen grains of quinine.
[3] Bath.
[4] Quinine.
[5] Sponging.

Date.			Temp.
Jan. 11	4	P.M.	99·2°
,,	6	,,	98·6
,,	8	,,	97·6
,,	10	,,	98·4
,,	12	,,	97·8
Jan. 12	2	A.M.	97·8
,,	4	,,	98·6
,,	6	,,	98·8
,,	8	,,	99
,,	10	,,	98·8
,,	12	,,	98·8
,,	2	P.M.	97·8
,,	4	,,	99·4
,,	6	,,	100·2
,,	8	,,	100·2
,,	10	,,	98·6
,,	12	,,	99
Jan. 13	2	A.M.	99[6]
,,	6	P.M.	100[6]
,,	10	,,	100
Jan. 14	2	A.M.	100
,,	2	P.M.	100·4
,,	4	,,	100
Jan. 14	6	P.M.	100[6]
,,	8	,,	100
,,	10	,,	100·2
,,	12	,,	100·8
Jan. 15	2	A.M.	102
,,	4	,,	102·6
,,	6	,,	101
Jan. 16	6	P.M.	100
,,	8	,,	100·4
,,	10	,,	100·4
,,	12	,,	100
Jan. 17	6	P.M.	100·6
,,	8	,,	102
,,	10	,,	102·6
,,	12	,,	102·6
Jan. 18	2	A.M.	102·6
,,	4	,,	102
,,	6	,,	101
,,	2	P.M.	102·6
,,	4	,,	104
,,	6	,,	102·8
,,	8	,,	102·6
,,	10	,,	100
Jan. 19	6	A.M.	100·4°
,,	8	,,	100
,,	12	,,	100·6
,,	2	P.M.	100·6
,,	4	,,	102
,,	6	,,	103
,,	8	,,	103
,,	10	,,	102·2
,,	12	,,	102
Jan. 20	2	A.M.	100
,,	6	,,	101·6
,,	10	,,	100
,,	12	,,	100·8
,,	2	P.M.	101·6
,,	4	,,	102·2
,,	6	,,	102·6
,,	8	,,	100
,,	12	,,	100·6
Jan. 21	2	A.M.	100[7]
,,	10	P.M.	100·6[7]
Jan. 22	2	A.M.	100·2[8]
,,	10	P.M.	101·2[8]
Jan. 23	6	,,	101[8]
Jan. 23	10	P.M.	102·4[9]
Jan. 24	2	A.M.	100·6[9]
,,	10	P.M.	100·4[9]
Jan. 25	2	A.M.	100[9]
,,	10	P.M.	102[9]
Jan. 26	6	,,	101[9]
,,	10	,,	101[9]
Jan. 27	2	A.M.	100[9]
,,	10	P.M.	100·2[9]
Jan. 28	2	A.M.	100·4[9]
Jan. 29	10	P.M.	100[9]
Jan. 30	2	A.M.	100·4[7]
,,	10	P.M.	102·6[7]
Jan. 31	—		—[9]
Feb. 1	10	P.M.	100[9]
Feb. 2	10	,,	100[7]
Feb. 3	10	,,	100[7]
Feb. 4	10	,,	101·8[7]
Feb. 5	10	A.M.	100·8[7]
,,	2	P.M.	100[7]
Feb. 6	2	A.M.	103·2[7]
,,	12	,,	102·6[7]

[6] From this date the temperature is only given when it reached 100°. Observations made bi-horally till Jan. 21st.

[7] Three observations. [8] Five observations. [9] Four observations.

March 9th. — The temperature has remained normal or nearly so ever since, but has not been taken at midnight. The only exceptions have been on Feb. 15th and 16th, when it ranged about 100°; and on Feb. 23rd it marked 100·4°. On March 16th and 17th the temperature was taken three times during the night, and was found normal.

TABLE SHOWING EFFECTS OF BATHS IN CASE I.

	Temp. before.	Temp. soon after.	Temp. 2 hs. after.	Temp. 4 hs. after.	Temp. 6 hs. or more after.	Interval of
1st	Bath ... ... 105·2°	..... —	101·0°	..... 105·6°	—	} 1st and 2nd, 4 hours.
2nd	,, ... 105·6	..... —	98·8	..... 104·6	105·2°	}
3rd	,, ... 104·6	..... 97·0°	99·0	..... 104·0	—	2nd and 3rd, 12 ,,
4th	,, ... 104·0	..... 97·0	100·4	..... 103·6	103·0	3rd and 4th, 4 ,,
5th	,, ... 105·0	..... —	102·4	..... 104·0	103·0	4th and 5th, 6 ,,
6th	,, ... 104·0	..... —	99·0	..... 101·6	103·0	5th and 6th, 8 ,,
7th	,, ... 105·0	..... 98·0	102·0	..... 105·0	—	6th and 7th, 38 ,,
8th	,, ... 105·0	..... 99·6	102·8	..... 104·0	—	7th and 8th, 4 ,,
9th	,, ... 104·0	..... —	99·4	..... 102·8	102·6	8th and 9th, 4 ,,
10th	,, ... 104·2	..... 96·6	103·0	..... 102·0	102·4	9th and 10th 14 ,,

March 14th: Going on very well; has gained much flesh; walks about.

(To be concluded.)

NOTES ON THE

SYSTEMATIC TREATMENT OF NERVE PROSTRATION AND HYSTERIA CONNECTED WITH UTERINE DISEASE.

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I AM anxious to bring very briefly under the notice of the profession in England a method of dealing with certain grave and most intractable forms of nervous disorder familiar to all who see much of the diseases of women, which I first became acquainted with through the study of a remarkable and interesting little work by Dr. Weir Mitchell of Philadelphia, entitled "Fat and Blood, and how to make them." In doing so I have no original contribution to medical science to make; I have simply followed Dr. Mitchell's directions, but with results so astonishing and satisfactory to myself, in cases which were quite heart-breaking from their obstinate resistance to all ordinary management, that I am confident I shall be doing the profession a service if I can secure for Dr. Mitchell's plan, which is based on sound theory and accurate clinical observation, a more extended trial than it has as yet received. I am the more encouraged to do this since Dr. Mitchell informs me that he is not aware that his principles of management have hitherto been tried at all in England, although well known in America. "Here," he writes to me, "the treatment has rescued hundreds of women, and is used by men like Perry and Goodell with increasing confidence. I hope at some time to write for some English journal a *résumé* of the treatment, but it were far better done by one like you, who could quote cases of success in England."

Pending Dr. Mitchell's promised contribution, which will, I am sure, be read with interest, I may, at least, try to prepare the way by the recital of a few of the cases in which I have found his plan so useful.

The class of cases referred to is not easy to define or describe accurately, and yet they must be perfectly familiar to all. I have called the condition, in the heading to these notes, "Nerve Prostration and Hysteria connected with Uterine Disease." Goodell, who has an interesting chapter on the subject in his "Lessons on Gynæcology," heads it, "Nerve-tire, or the Relations of Neurasthenia to Diseases of the Womb." The protean symptoms we have to deal with are such as gradually develop themselves in those confirmed invalids who are so widely scattered over the country, who have been from one doctor to another, subjected to all sorts of uterine medication, mechanical and other, with no lasting improvement, until eventually they become bedridden, or nearly so, sleepless, victims to chloral and morphia, worn and wasted, and burdens to themselves and their families. Now, in a large number of these cases there is, or has been,

very real uterine mischief. I shall not be accused, I am sure, of any disposition to minimise the influence of local uterine disorder on the general health. As a matter of fact, however, many of these cases have drifted far beyond the point at which local treatment, however judicious, is capable of effecting a cure. The pain, the backache, the leucorrhœa, the difficulty in progression, the disordered menstruation which are attendants on the local troubles, have ended in producing a state of general disturbance in which all the bodily functions become implicated. The nervous system is profoundly affected, the blood impoverished, and the general nutrition at the lowest ebb.

I shall not attempt here to explain the pathology of this state, but rather to describe the class of case, which, however, all my readers will at once recognise. Such cases have two or three prominent symptoms in common, among the most marked of which are wasting of the fatty tissues, combined with anæmia, the patient having gradually lost all appetite, professing a total inability to take a healthy amount of food, and often consuming barely enough to support vitality. Associated with this are very marked dyspeptic symptoms, too often aggravated by the pernicious habit of deadening pain by chloral, morphia, or stimulants. As a necessary consequence of such a state, and partly no doubt from local pain, all exercise is abandoned, and the patient becomes entirely confined to the house, or even to bed. Another group of symptoms which soon show themselves under such conditions are those of a moral character, the patient becoming emotional and hysterical, constantly craving for sympathy, which she often obtains to a degree most prejudicial to her welfare, until at last the whole household becomes victimised by the morbid selfishness thus developed. Every practitioner must know of cases of this kind, and must be familiar with the useless endeavours at cure which have been made by tonics, water cure, and a hundred other plans, each of which has proved equally unsuccessful.

It is in such cases that Dr. Mitchell's method is applicable, and it is based on the principle, which must be admitted to be perfectly physiological and reasonable, of removing the patient from the unwholesome moral atmosphere in which she has been living, combined with the renewal of her vitality by excessive feeding, which, under ordinary circumstances, could not be assimilated, but which is rendered possible by passive muscular exercise obtained through the systematic use of shampooing and electricity. At first sight this sounds, perhaps, chimerical; and, had I not myself witnessed the astonishing success which followed its use, I would doubtless be as sceptical as others may be as to its value. I propose, however, to relate the first four cases in which I have followed Dr. Mitchell's method, each of which had been for years in a state of hopeless misery, subjected to all sorts of treatment in vain, and I trust that the simple narration of these remarkable cases, which are not selected, but are the first which have come under my observation, may secure for this rational treatment a fair and extended trial. Before relating them, however, I shall shortly describe the method of treatment I used, and in doing this I merely paraphrase Dr. Mitchell's directions. I must necessarily be extremely brief, and I must refer those who are disposed to try it to Dr. Mitchell's book, in which full details for their guidance will be found. The plan involves four principal heads, each of which I shall refer to separately.

1. *Seclusion and rest.*—An important element in the treatment, and one which, from what I have seen of these cases, I believe to be absolutely indispensable, is the entire seclusion of the patient under a competent nurse, and her removal from the morbid atmosphere of invalid habits, which has gradually grown up around her. Unless the patient is entirely removed from the injudicious sympathy and constant tending of her friends, it will be next to impossible to gain that moral influence over her which is really essential to success. This is a point which involves so severe a strain that it may be found very difficult to obtain the consent of the patient and her friends to a measure which will seem to them so harsh and strange. I do not think, however, that any compromise on this point should be admitted, and if it be found impossible, from domestic reasons, to secure the removal of the patient from her house, it should, at least, be made an absolute *sine quâ non* that she should be placed in a separate room with her nurse, and that she should not be visited by any one except her medical attendant. On this point Dr. Mitchell's experience is worthy of note. "I have often," he says, "made the effort to treat these cases in their own homes, and to isolate them there, but I have rarely done so without promising that I would not again complicate my treatment by such embarrassments. Once separate the patient from the moral and physical surroundings which have become part of her life of sickness, and you will have made a change which will be, of itself, beneficial, and will enormously aid in the treatment which is to follow." The first step, on commencing, is to place the patient at rest in bed. It will readily be understood that this absolute repose is only intended as a temporary resource, until, by the means presently to be described, the nutrition is improved, and new tissues are built up. Space will not permit of my following Dr. Mitchell in his explanation of the manner in which this proves serviceable; but, independently of the physical benefit in patients apt to suffer from exhaustion on the slightest fatigue, there is a distinct moral gain. "From a life of irregular hours, and probably endless drugging, from hurtful sympathy and over-zealous care, the patient passes to an atmosphere of quiet, to order and control, to the system and care of a thorough nurse, to an absence of drugs, and to simple diet." As a rule, in bad cases this repose in bed is continued during the greater part of the treatment, averaging from six to eight weeks; and at first the rest is made absolute, the patient being only allowed to rise for the purpose of passing her evacuations, and is neither allowed to read, to sew, nor to feed herself. Practically there is so much to do with feeding, massage, and electricity, that this is not found so wearisome as might be supposed; but, no doubt, the monotony of the life and the growing strength, which accompanies a satisfactory progress towards cure, tend to make the patient the more willing to throw off her old habits of invalidism when the proper time arrives to make the effort. By degrees the period of repose is lessened, and the patient is gradually made to sit up for several hours, until towards the end of the cure she only rests on the bed for three or four hours daily.

2. *Massage.*—This, combined with faradisation, is a very important part of the treatment, and it consists in systematic shampooing and exercise of all the muscles, both of the extremities and trunk, first for half an hour or so twice daily, but very soon for not less than an hour and a half night and morning. By this means the cutaneous circulation is improved, and the muscles are brought into active exercise without the expenditure of nerve force. To do this effectually considerable experience is required, and although in one or two cases I have had it done successfully by the nurse, it requires so much intelligence on her part, and she is besides otherwise so fully occupied by the rest of her work, that I think it preferable to employ a regular rubber. Full details of the method to be adopted, and the best way of exercising the various groups of muscles and the joints will be found in Dr. Mitchell's book. It is surprising how soon the patient comes positively to enjoy a manipulation that for the first few days is very trying. Soon all local tenderness disappears, and a pleasant sense of exhaustion, followed by refreshing sleep, is alone experienced. In two of my cases the abdomen, especially in the ovarian regions, was so tender that the patient at first shrank from the slightest touch, but in a very short time she could be freely handled and kneaded in every part.

3. *Electricity.*—This forms a valuable subsidiary means of exercising the muscles. The interrupted current is employed twice daily from half to three-quarters of an hour. Here, again, some practical skill is necessary, but with a little careful teaching on the part of the practitioner, the use of the battery can be safely and efficiently entrusted to the nurse. The poles, armed with wetted sponges, are placed on the muscles to be operated on in turn, about four inches apart, and slowly moved until the muscle is fully and freely contracted. Commencing with the feet, the whole body, except the head, is thus systematically gone over. There is no doubt that this is painful and disagreeable, but it is of unquestionable utility, especially in cases such as the one to be presently narrated, in which there was long-standing hysterical paralysis, and consequent atrophy from disuse of extensive groups of muscles.

4. *Diet and regimen.*—These form the most important and most characteristic part of the cure. It is perfectly astonishing how, under the conditions above described, a pale, anæmic, and wasted invalid, able to eat next to no food, can be brought to consume, and not only to consume but perfectly to assimilate, an amount of nourishment that would appear to be incredible had experience not amply

proved the fact, so that she shall gain flesh, weight, and strength so rapidly that the change is almost apparent to the eye from day to day. The first step, after secluding the patient with the nurse, and before the massage is commenced, is to place her on a diet of milk alone, given at intervals of three hours. At first three to four ounces are given at each feeding, but in a couple of days or so the amount is increased to eight or ten ounces, so that within three or four days she is consuming two to three quarts of milk within the twenty-four hours. No difficulty is experienced in getting the patient to take this quantity, and if she suffers, as so many of these cases do, from dyspeptic symptoms, they rapidly disappear. After the first two days, when the stomach is settled, the massage is commenced, and along with it an increased amount of food is administered, commencing with bread-and-butter, an egg, or the like, for breakfast; then, in a day or two, a chop finely cut up, with some vegetables, is given at midday, and so on progressively, until in from ten days to a fortnight three full meals daily are given, besides from a quart to two quarts of milk in divided quantities, and a considerable amount of soup made from raw beef, after a receipt given in Dr. Mitchell's book. It seems impossible, but it is nevertheless a fact, that under the use of massage and electricity these large amounts of food are taken readily without the slightest feeling of dyspepsia or discomfort. In illustration I copy the food journal on the fourteenth day of treatment of one of my patients, who had been bedridden for many years, and who all that time had existed on a dietary almost as remarkable from its smallness, frequently not taking more than half a tumbler of milk in twenty-four hours, and who could not be persuaded to eat more than one strawberry at a time, as forming a meal too large for her capacity. The treatment was commenced on October 16th with three ounces of milk every third hour. On Oct. 30th this was what she consumed with appetite:—5 A.M.: Ten ounces of raw meat soup.—8 A.M.: Cup of black coffee.—9 A.M.: Plate of oatmeal porridge with a gill of cream and a tumbler of milk.—12.30: Milk.—1.45 P.M.: Whiting, bread-and-butter, rumpsteak, cauliflower, omelette, and a tumbler of milk.—4 P.M.: Milk.—5 P.M.: Milk and bread-and-butter.—7 P.M.: Fried haddock, chicken, cauliflower, apple and cream, and a glass of burgundy.—9.30: Milk.—11 P.M: Raw meat soup. (The milk between 8 A.M. and 9.30 P.M. amounted to two quarts.) Nor is this exceptional. In every case I have treated on this plan similar amounts of food were taken, and with the same advantage. Of course, certain difficulties are apt to be met with, but only in one of my cases was any nausea or oppression experienced from the administration of this apparently excessive diet, and in that I attributed the sickness rather to too sudden an attempt to stop the hypodermic injection of morphia the patient had been accustomed to than to the feeding. At any rate, should sickness supervene, a temporary return to milk alone for a day or two will be sufficient to settle the stomach.

I have only attempted to sketch, in very rough outline, the principles on which the treatment is conducted; the results will be better appreciated by a short narration of a few of the cases in which I have employed it with success.

CASE 1.—Early in October of last year I was asked to see a lady thirty-two years of age, with the following history: She had been married at the age of twenty-two, and since the birth of her last child had suffered much from various uterine troubles, described to me by her medical attendant as "ulceration, perimetritis, and endometritis." Shortly after the death of her husband, in 1876, these culminated in a pelvic abscess, which opened first through the bladder and afterwards through the vagina. Paralysis of the bladder immediately followed the appearance of pus in the urine, and from that time the urine was never spontaneously voided, and the catheter was always used. Soon after this she began to lose power in the right leg and then in the left, until they both became completely paralysed, so that she could not even move her toes, and lay on her back with her legs slightly drawn up, the muscles being much wasted. Towards the end of 1877, after some pain in the back of her neck and twitching of the muscles, she began to lose power in her left arm and in her neck, so that she lay absolutely immobile in bed, the only part of her body she was able to move at all being her right arm. Up to this time the pelvic abscess had continued to discharge through the vagina, and occasionally through the bladder, but it now ceased to do so, and there were no further symptoms referable to the uterine organs. Her general condition, however, remained unaltered, in spite of the most judicious medical treatment. She was seen, from time to time, by several of our most eminent consultants, all of whom recognised the probable hysterical character of her illness, but none of the remedies employed had any beneficial effect. There was almost total anorexia, the amount of food consumed was absurdly small, and the necessary consequence of this inability to take food, combined with four years in bed with paralysis of the greater part of the body, and the habitual use of chloral to induce sleep, had reduced a naturally fine woman to a mere shadow. In October, 1880, her medical attendant was good enough to bring her to London for the purpose of giving a fair trial to the Weir Mitchell method of treatment, with the ready co-operation of herself and her friends, and she was conveyed on a couch slung from the roof of a saloon carriage, so as to avoid any jolt or jar, since the slightest movement caused much suffering. Two days after her arrival my friend Dr. Buzzard saw her with me, and, after a careful and prolonged electrical examination, came to the conclusion that contractility existed in all the affected muscles, and that the paralysis was purely functional. I could find no evidence in the pelvis of the abscess, the uterus being perfectly mobile, and apparently healthy. After a few days' rest the treatment was commenced on October 16th, the patient being isolated in lodgings with a nurse of my own choosing; and this was the only difficulty I had with her, since she naturally felt acutely the separation from the faithful attendant who had nursed her during her long illness. Her friends agreed not to have communication with her of any sort. It is needless to give the details of the treatment in this and the following cases. A mere abstract will suffice to indicate the rapid and satisfactory progress made.

October 16th.—Twenty-two ounces of milk were taken, in divided doses, in twenty-four hours; on the 17th, fifty ounces of milk; on the 18th, the same quantity of milk repeated; massage for half an hour; on the 19th, milk as before; bread-and-butter and egg; massage for an hour and a half; twenty minims of dialysed iron twice daily; on the 21st, a mutton chop in addition to the above; massage an hour and fifty minutes. To-day she passed water for the first time for four years, and the catheter was never again used. Chloral discontinued, and she slept naturally all night long. On the 23rd porridge and a gill of cream were added to her former diet; massage three hours daily, and electricity for half an hour, and this was continued until the end of the treatment. Maltine was now given twice daily.

30th.—She is now consuming three full meals daily of fish, meat, vegetables, cream, and fruit, besides two quarts of milk and two glasses of burgundy. Considerable muscular power is returning in her limbs, which she can now move freely in bed.

Nov. 6th.—Sat in a chair for an hour. The massage and electricity are being gradually discontinued, and the amount of food lessened.

Nov. 17th.—Walked downstairs, and went out for a drive, and henceforth she went out daily in a bath chair. She has increased enormously in size, and looks an entirely different person from the wasted invalid of a few weeks ago.

On Nov. 25th she went to Brighton quite convalescent, and on Dec. 11th came up of her own accord to see me, drove in a hansom to my house, and returned the same afternoon. She has since remained perfectly strong and well, and has resumed the duties of life and society.

A somewhat curious phenomenon in this case, which I am unable to account for, was the formation on the anterior surface of the legs, extending from below the patellæ half way down the tibiæ, of two large sacs of thin fluid, containing, I should say, each a pint or more, freely fluctuating, and quite painless. I left them alone, and they have spontaneously disappeared.

(To be concluded.)

THE METROPOLITAN DISPENSARY.—The Lord Mayor presided at the biennial dinner held at the Albion Tavern last week in aid of the funds of this institution. Last year relief was afforded to about 8000 persons at the dispensary and about 3000 others at their own homes. Each patient pays a penny at the time of being seen by a medical officer.

A BRIEF OUTLINE OF

DR. ZANDER'S MECHANICO-THERAPEUTICAL INSTITUTION IN STOCKHOLM.[1]

BY T. GILBART SMITH, M.A., M.D.,
ASSISTANT-PHYSICIAN TO THE LONDON HOSPITAL.

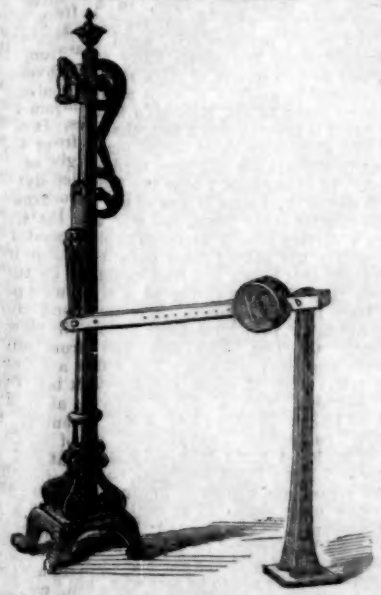
GYMNASTIC exercise has in Sweden long been regarded as a valuable aid to therapeutics, and what we in England call rubbing and shampooing are there developed into a recognised art. Several institutions exist having for their object the preservation and re-establishment of health by means of muscular exercise and through certain operations on the human body. In these institutes the various exercises are manually performed or induced. The patient is placed in charge of an operator, who stretches, bends, or twists the different joints and muscles of the patient while the latter makes a certain resistance, or the operator himself makes resistance while the patient executes the above-mentioned movements. These are called *active movements*. *Passive movements* consist of various operations on the body of the patient—such as shaking, chopping, rubbing, &c.,—and are executed by the operator while the patient remains in perfect repose; the object of these movements being to produce wholesome vital activity and a harmonious development by means of judicious exercise. But the achievement of this by manual means is beset with difficulties arising in connexion with both patient and operator. The former may be unable correctly to estimate the amount of force suitable for him to use in the various movements, and may fail to derive benefit by under-estimating what strain he can bear, or may actually diminish his strength by over-estimating the exercise it is capable of enduring without injury; the latter (the rubber) may be deficient in that tact, experience, and judgment which are requisite in order for him to accommodate the increase or decrease of the resistance to the varying strength of the patient upon whom he may be operating. In fact, these manual operations, to be really of use, require that only such persons should be employed as rubbers as are naturally endowed with the requisite qualities (and these are absolutely necessary), and have gained dexterity by long and assiduous training; and, moreover, however well trained the rubber may be, he must at the end of an hour or two be more or less tired, and his sensibility of touch impaired.

Dr. Zander, during his experience as a gymnast, was struck by the difficulty not only of adapting the amount of force to be used by the rubber exactly to the strength of the patient, but also of producing that slow and gradual increase in the use of the muscular power so necessary where employed as a therapeutic agent. To remedy this defect it occurred to him to replace the gymnast by machines, as these could always be regulated to whatever amount of force was desirable, and consequently a gradual increase of their action very easily produced. It is this idea which has been carried out by the Mechanico-Therapeutic Institution.

Dr. Zander was induced to commence experiments twenty-two years ago. After trying several systems of gymnastic exercises, he came to the conclusion that their defects rendered them almost useless, and he therefore set about constructing machines to be worked by most of the different sets of muscles. The resistance made by the machine was adjusted to a maximum and minimum in proportion to the average amount of force generally produced by the respective sets of muscles. The maximum and minimum as well as the intermediate degrees of force were indicated by a graduated scale. Dr. Zander first tried his experiments on the pupils in a large school with which he was connected. He found as a result a marked increase of strength, even in the most delicate children, combined with marked improvement in weight, appetite, and spirits. This led to the opening of his institution in 1865, furnished with twenty-seven machines, which have since then been considerably improved and largely added to. The apparatus of the Mechanico-Therapeutic Institution of Stockholm consist at present of sixty-seven machines: seventeen for active arm movements, eighteen for active leg movements, nine for active trunk movements, and twenty-three for passive movements. In these machines spiral springs are not used for the required force, inasmuch as with a spring resistance is greatest at the close of the movement.

In accordance with nature, in which the muscles act upon the bones as upon levers, Dr. Zander has constructed his machines on similar principles, and the weight to be moved, being placed upon a graduated lever, furnishes a resistance which, conforming to the mechanism of nature, is greatest in the middle of the movement and least towards the beginning and end. By the mechanical method alone can an accurate record of the development of the different muscles and the strength of the remedy suitable to each case be obtained; it provides the patient with a fixed measure of the increase of power gained by him by which he can regulate his exertion.

ARM-TURNING MACHINE.



With this apparatus two separate motions are performed—one (*backward*), pronation; the other (*forward*), supination—which act especially upon the muscles of the inner side of the forearm, and in a minor degree on those of the shoulder. The adjustment of the weight upon the lever regulates the resistance in conformity with the strength of the patient. If the arm cannot be held perfectly straight the exercise is too powerful, and the resistance must be diminished.

As an instance of the practical working of this we may suppose the case of a patient who desires to exercise his arm by bending. The apparatus designed for this movement is first arranged so as to offer a weak resistance; should this resistance be too weak it is increased until the patient must make a slight effort to overcome it. The measure of this amount is found on the scale of the apparatus, and the number noted. If the patient finds after some time that what at first was felt to be a slight exertion has entirely ceased to be so, one may conclude that the strength of the muscles has increased, and therefore the resistance of the apparatus must also be increased. The gradual development of the muscular system cannot be obtained in a more perfect manner. It is of much importance to be able thus to modify the amount of exercise with accuracy, especially in cases of weak persons whose sense of fatigue varies from day to day. Movements performed thus by machinery, which never tires or suffers from illness, as is unfortunately the case with shampooers, allow the institution to accommodate a larger number of patients, and that, too, at a moderate cost, an important feature which places the benefits of this mode of treatment within the reach of many. Dr. Zander's institution is open daily from October 1st to June 1st; four and a half hours daily for gentlemen, and two to three hours for ladies. To each patient is given a prescription ordering specified movements, and fixing the force to be employed in accordance with his or her strength and requirements.

[1] A paper read before the Medical Society of London, where three of the machines and photographs of others were exhibited to the Fellows.

Although most attend for the relief of some special ailment, yet many go through the various exercises in order to ward off the effects of a sedentary life. Dr. Zander enumerates the following as the complaints which are most frequently treated by him:—Chronic heart and lung diseases, catarrhal condition of the throat, stomach, and intestines, constipation, hæmorrhoids, uterine diseases, paralysis of various forms, cramp, diseases of the joints, such as anchylosis, sprains, &c., rheumatism, spinal curvatures, deformities, &c.

At first sight this method of treatment would hardly appear adaptive to the distressing symptoms of persons suffering from heart disease, but on closer inspection it will be easily conceivable that well-arranged, varied, and regular exercise, if not overdone, may beneficially influence even a circulation disabled by valvular lesion. Judicious muscular contraction by promoting the onward flow of the blood in the peripheral vessels, and by stimulating arterial tension, facilitates the circulation, thus relieving an overloaded and obstructed ventricle and regulating the heart's action. And such practically Dr. Zander has proved to be the case in the large number of patients who attend his institution for the treatment of various cardiac derangements. Their symptoms are essentially mitigated under the judicious use of these mechanical contrivances; palpitations become less frequent, dyspnœa and distress are considerably diminished. In that condition of soft and wasted muscular tissue, combined with general want of mental and physical tone, so invariably found in connexion with convalescence from acute and severe illness, not only does this method provide an invaluable aid to therapeutics, which may induce a speedy restoration to health, but is also well calculated to prevent disorders which so often imperil complete recovery at such periods.

For the treatment of lung disorder, accompanied with deranged bronchial secretion, loss of elasticity, congested vessels with want of power in the respiratory muscles, the mechanical method promises well. Moreover, even during pregnancy, a regular and careful exercise of the muscles has proved highly beneficial to the general health. It is impossible in the scope of this short paper to allude to all the different machines devised by Dr. Zander, or to name even the diverse movements for which they are used; but amongst others I may be permitted to quote their inventor relative to the value of the following passive movements—viz., vibrating, chopping, foot-rubbing, trunk rolling, and chest expansion:

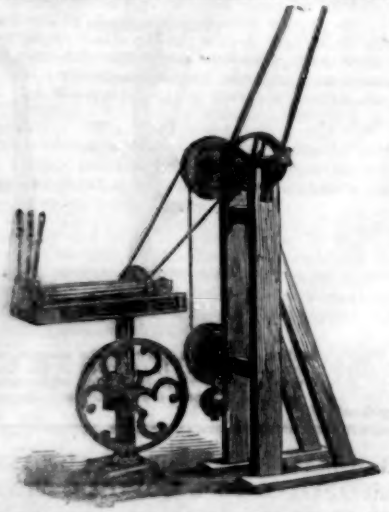
"*Vibrating machine* for shaking various parts of the body. Shakings are especially valuable as curative agents on account of their well-defined physiological effects. On tired or aching muscles and nerves they have a very refreshing and relieving effect. Pain is often entirely subdued by a single shaking during some minutes. Sensitive persons taking a foot-shaking feel a certain sense of coldness in the feet during the operation, but become soon afterwards warmer than before the movement. When taking a shaking on the os sacrum, one can easily feel that the walls of the rectum and the bladder vigorously contract, especially if they are full. Shaking of the chest or the throat facilitates the expectoration in catarrhs, and the absorption of pleural exudations. Shaking of the back between the shoulder-blades has a specific effect upon the action of the heart; it always makes its contractions less frequent and more effective. Persons suffering from nervous palpitation feel very much relieved after such a movement; the pulse has in one case been observed to fall from 130 to 90. In cases of fatty degeneration of the heart, when its action is very weak and very rapid, the back-shakings, together with such movements as facilitate the action of the heart by lessening the pressure of the blood in the arteries, are invaluable.

"'*Chopping*' *or rapid* '*hammering*' on various parts of the body has a more superficial effect than shaking. The movement consists of a number of alternating and rapidly succeeding compressions and relaxations of the superficial soft parts, draws the blood to the part acted upon, and produces an increased warmth and vitality. It is used as a stimulant and derivative agent.

"*Foot-rubbing.*—The patient puts the soles of the feet against the rapidly revolving, furrowed wheel, a piece of soft chamois being placed between the feet and the rubbing surface of the wheel. The operation has a stimulating and warming effect, and is very efficacious in drawing blood to the lower extremities.

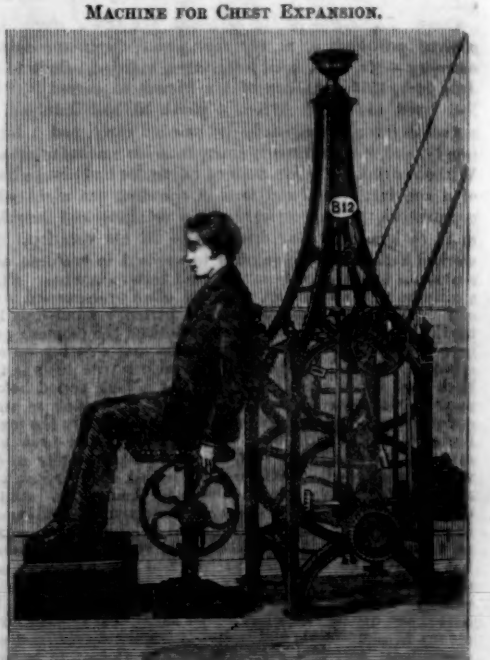
"*Trunk-rolling.*—The patient takes his seat on a sort of saddle fastened to the top of a vertical lever, the lower end of which is made to rotate in larger or smaller circles, the fulcrum being near to the saddle. By this means the saddle is successively inclined in all directions; the angle of inclination being large in proportion to the diameter of the circle, which the lower end of the lever describes. The patient, seated on the saddle, is obliged to use all the muscles round the waist to keep his balance. Moreover, the abdominal viscera are, as it were, kneaded and rubbed

MACHINE FOR RAPID HAMMERING OR CHOPPING.



against each other and the abdominal walls; which cannot be without a beneficial influence upon the circulation in their bloodvessels, as well as their respective functions. The movement is used not only to strengthen the back and abdominal muscles, but also to cure torpidity and circulatory disorders of the abdominal viscera.

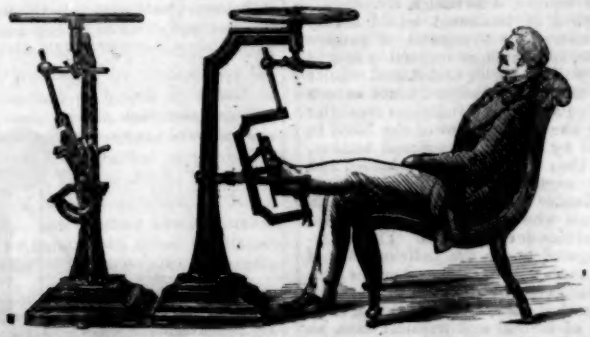
MACHINE FOR CHEST EXPANSION.



"*Expansion of the chest.*—The thorax is pulled upwards by means of two levers, while a pad makes a horizontal pressure on the back. The trunk is hereby elongated a few

inches, and the spine and the walls of the chest are stretched. After some seconds the machine permits the thorax to sink down, and the movement is repeated seven to ten times. The patient remains perfectly passive, only inspiring during the pulling up, and expiring during the sinking of the thorax. Persons who carry on a sedentary life respire very superficially; the walls of the thorax become too stiff, and make the respiratory function laborious; the lower lobes of the lungs partake very little in the respiration. By using the chest expansion, the walls of the chest recover their elasticity, and the patient is made to inspire deeply, so that the air can penetrate to every part of the lungs."

MACHINE FOR ROLLING THE FOOT.



Rolling of the foot acts upon the muscles, which bend and straighten the foot, working the ankle in a circular manner. If the thigh be not fixed, the rolling movements are the result of the action of the muscles of the whole leg. This, while being less tiresome, is not of such benefit to the ankle as when the thigh is kept in a fixed position. It greatly assists the circulation in the lower extremities.

Harley-street, W.

ON GENERAL PARALYSIS OF THE INSANE CONSECUTIVE TO LOCOMOTOR ATAXY.

BY W. JULIUS MICKLE, M.D., M.R.C.P.,
MEDICAL SUPERINTENDENT, GROVE HALL ASYLUM, LONDON.

(Concluded from page 820.)

I WILL now describe an example of general paralysis of the insane following locomotor ataxy, and recently under my care.

CASE. *Locomotor ataxy of about five years' duration; general paralysis of nearly four years' duration; death; necropsy.*—Mr. ——, aged forty-three, married, admitted on July 24th, 1877. As one of his friends expressed it, "he had lived his life." When a youth he had indulged in sexual excess; subsequently he married early, had a large family, and was confessedly amorous in his marital relations. Without drinking to any decided excess, he had always been of a convivial turn, and fond of spending the night with companions, playing at cards, and drinking and smoking more or less. He had been active in his vocation, had worked hard, had been anxious to succeed in business, and ambitious to place his family in still better standing. Physically he was not strong, and had often over-exerted himself. For a long time before the patient's admission his medical attendant (since deceased) noticed the patient's gait become impaired in a way similar to that existing on admission. He had also been laid up with severe pains in the back and limbs after a fall, and for a long period before mental symptoms supervened he had from time to time suffered from sudden, shooting, darting pains in the lower limbs, which usually were only transitory, and even momentary. He had, however, behaved very strangely to his wife on one occasion immediately after her confinement, and about a year before his admission to the asylum. At the time of his admission she was again several months advanced in pregnancy. Pronounced symptoms of insanity, recognised as such, had existed for three weeks before his admission; but for several months the patient had shown some mental alteration, although he was not then looked upon as being insane. Latterly he became speculative, bought and sold horses and cattle, drank more than usual, lent or gave away money to undesirable and unsteady acquaintances, and was unwontedly active, fussy, restless, and violent in temper. During the three weeks of more active symptoms immediately preceding his entry he had threatened to poison his brother, under the delusion that the latter was an illegitimate pretender; he had been coarse and violent in language and in manner before his wife and children, and in public places and railway carriages; his buying and selling had been reckless; his temper violent; his driving furious; his language had been incoherent, and had revealed extravagant views as to his money and possessions. Transactions resulting in loss he declared to be fruitful of gain. He stated that he would live long, and would leave each of his children £10,000; that he was about to buy an estate, and had a horse about to win £10,000 in a race.

On admission, the patient was found to be 5ft. 8in. in height, and to weigh 137 lb.; thin; viscera healthy; cardiac sounds loud, the second widely heard; pulse 120, full, compressible; pupils equal, rather small, slightly irregular in shape, sluggish; tongue protruded slightly to left, irregularly and shakily, pale, large, flabby, indented, furred; face somewhat flabby; occasional facial and labial trembling or twitch during speech, sometimes on the left side only; complexion rather muddy, dilated venules on cheeks; speech tremulous, occasionally slightly hesitating or pausing, and mainly so when he commences to speak. Gait ataxic, steps high and somewhat wide, feet thrown outwards, toes at first out, but turn in at moment of reaching ground, heels somewhat brought down, whole movement of walking irregular, shaky, and jerking. He can stand with the feet close together so long as the eyes are open, but when these are closed he at once sways and falls; with feet wide apart and eyes closed, his frame sways and rocks unsteadily to and fro, but he does not fall. Grasping power of hands good, handwriting shaky, and slightly irregular and erratic. The patient denies having had venereal disease, except gonorrhœa once when young. He speaks of former lumbar pain and tenderness, of former severe pains in legs and feet, and failure of power in the legs. Shortly after admission he twice hurled a flower-pot through the window-glass. Demands £210,000 as compensation for his illegal detention. "Has 400 acres of land, six hunters, three nice grooms, a pack of hounds, and will hunt for sixty years." "Sold seven horses last week for £200 each." "Will win £100,000 each on the Newmarket, Cesarewitch, and Liverpool races." "Has bought 100,000 hats." "Has been kind and good to everyone, and is beloved by all." "His father was the best man who ever lived." Wants to be off; even at midnight demands a cab. Says his wife is here or near at hand; is easily diverted; at one moment crying, denouncing his detention, and threatening vengeance; at another he is smiling, patronising, and good-humoured. Ordered physostigma and iron, and a night draught of chloral and potassium bromide.

After being active, restless, and energetic for a time, he became depressed early in August, weeping often, and the physostigma was omitted, and, as he now slept well, the hypnotic was also discontinued. The face, lips, tongue, and

gait were less affected than before. Cod-liver oil was given.

At the end of August the exaltation and extravagant delusions were buoyant. "God had told him that his father and mother were sitting next to Him in heaven, and that after death he himself would sit next to God." "At night he sees angels sitting on his bed." "Has £30,000 a year, and will derive enormous wealth from two patents; will buy and clip all the sheep in the world." Speech, tongue, lips, face, and pupils worse again, and now much as on admission. Iris thrust forward, gait variably ataxic. Pulse 102 and 114, compressible. Resume physostigma and iron.

October.—Very depressed; weeps about being detained; worries about imaginary losses of large sums of money. "Had £1018 from an 'accident company,' which must pay him £300,000 more." Pulse 110.

November.—Occasionally depressed, and even refusing food for a meal or two. Writes letters containing the foulest abuse of some of his friends. Writes letters to me, and to himself, purporting to be from his friends, and to make arrangements for his discharge, and tries to get them secretly posted. Delusions of identity, fancying he formerly knew certain of his fellow-patients. Gait highly ataxic, although he boasts that he can run better than ever. Speech and facial condition, which had been worse, were now improved. Pupils small and somewhat sluggish. Refuses any medicine.

December.—Now takes cod-liver oil.

Jan. 1st, 1878.—"He, his wife, and children will live until the resurrection day. Is God by Jesus Christ. God sent an angel to him last night to tell him so; it perched on his foot, and stroked his face with its wings to wake him; he did not see it, but heard its message and felt its touch." Still makes claims on an "accident company" for large, varying, and often odd amounts.

March.—Weight 137 lb.

August.—Handwriting same as on admission. Gait ataxic, forehead and brows often affected by twitches of occipito-frontalis and upper part of orbicularis palpebrarum; during speech there were occasional twitches about the upper lip, zygomatici, and levatores labii superioris alæque nasi, and either during speech or at other times twitching of the left cheek. Pupils equal, small, slightly irregular, somewhat sluggish. Speech occasionally pausing, hesitating, with partial repetition of syllables, and quasi-stammering. The tongue was tremulous on protrusion, and then slight twitches played about the lips and face. The lower part of the face was losing the lines of expression; the skin was now clear, and there were traces of a florid complexion. Incontinence of urine occurred by day and night. At every passing train he shouted "drop," and explained that whenever he did so the engineers on the train dropped dead, and that 100,000 of them were piled up dead at the station. He struck them dead, he said, because they were quite raked and drove trains without freight or passengers, thus putting him to an enormous expense to repair 4,800,000 carriages. "There are only a dozen people in London, little cads, whose lives he had saved. He had supplied all England with meat and saved her from dying, and God says he's the best man who ever lived. He bought 150 of the best pictures in the world at 1s. a-piece." He talks to God, replying to his own queries, and in this imaginary conversation the replies, he says, are uttered by God.

May 6th, 1879.—Weight, 135 lb.

Sept. 15th, 1880.—No patellar tendon-reflex; no ankle clonus, but some twitches and startings when either foot is forcibly extended upon the leg; moderate twitches and jerks of legs in reaction to tickling of soles of feet; pinches of feet are not much noticed; occasional spontaneous, irregular, twitches and jerks of legs. Gait excessively jerking and ataxic; can scarcely take a step safely; in attempting to walk the feet are thrown outwards and the heels are brought down in a wildly erratic manner. Pupils equal, small, act moderately to light and in accommodation. Tongue flabby; very jerkily, irregularly, and imperfectly protruded, twitching and shaking much. Speech much embarrassed; cannot give his name; to everything replies, "All right"; and often wears a happy, fatuous look. Continual incontinence of urine, and, occasionally, of fæces. At and after this time the locomotor disability was so great that he had to remain in an easy-chair. But while in it he continually straightened and extended the lower limbs. The upper limbs also were kept straight and extended, and the fore-arms extremely pronated, wrists flexed, and hands abducted, so that the palms were turned outwards, backwards, and even somewhat upwards. The voluntary movements of the arms were attended with twitching and jerking, which also occurred when the parts were at rest. As for the usually straight, extended, and more or less rigid legs, voluntary and involuntary movements of them were attended with twitching and jerking, and slight pinches or scratches, or passive motion of the legs brought these on as well. The right foot was in the position of mild talipes varus; there was now slight ankle clonus; speech was much affected; tongue protruded with great difficulty, and with much jerking and twitching of it, and simultaneous twitches of face and lips, the spasm playing over the features for some times afterwards. Some anæsthesia and analgesia, of lower limbs especially. The patient was smiling and "all right" to the last, although at times scarcely able to utter the words. During the last two months of life he was continuously bedridden, and for a month or two before that had been unable to leave an easy-chair.

Dec. 23rd.—Severe convulsions came on at 2 A.M., but had ceased by the time he could be seen by the medical officer called to him. After the convulsions the patient became, and continued to be, comatose, with slow pulse, infrequent gasping respiration, livid and pale face, and pupils of moderate size. Brandy enemata were given. Died at 10 A.M.

Necropsy.—Brain: Dura mater slightly thickened and congested. Olfactory tracts and bulbs wasted. Optic nerves rather shrunken, but white. Other cranial nerves of ordinary appearance. Arteries at base of brain healthy. Superior and posterior meningeal veins full; meninges hyperæmic. Arachnoid highly opaque over superior external and internal cerebral surfaces; the opacity is patchy, it is only slight over the tips of the occipital lobes. Pia-matral œdema, corresponding in relative degree and distribution with the opacity of arachnoid. Adhesion and decortication of summits of gyri marked. On the right cerebral hemisphere this adhesion occurs especially over the entire upper surface of the first and second frontal gyri, and over that part of the third adjoining the vertical branch of the Sylvian fissure. Scattered points of the same are found on both ascending convolutions; the supra-marginal gyrus suffers severely, the angular rather less, the postero-parietal lobule slightly, the first occipital very slightly, the temporo-sphenoidal are considerably affected along their whole external surface, the under surface of the temporo-sphenoidal lobe suffers somewhat, the back part of the orbital surface considerably, as also the inner cerebral surface bordering on the periphery of the great cleft. On the left hemisphere are well-marked, extensive adhesions over nearly the whole area of the summits of the first, second, and third frontal gyri, the lower two-thirds of the ascending frontal, and the supra-marginal. Moderate adhesions over angular, front part of postero-parietal, whole external and inferior surfaces of temporo-sphenoidal lobe; also on orbital surface. Slight adhesions over front part of occipital lobe. The ascending parietal escaped this change, except its lower half inch. Surface of erosions reddish. Grey cortex wasted in frontal and parietal regions; rather pale at base. Brain considerably vascular; also soft and flabby, except the anterior portions of white substance. Fornix diffluent. Lateral ventricles appear fairly healthy. Basal ganglia rather soft, and contain a liberal blood-supply. Cerebellum: Some adhesions on its surface, consistence rather diminished. Pons Varolii and medulla oblongata rather soft and vascular. Ependyma of fourth ventricle thick, and of a gelatinous sanded appearance. Weights: Right cerebral hemisphere, 18½ oz.; left, 17¾ oz.; cerebellum, 5½ oz. Pons Varolii and medulla oblongata, 1 oz. Fluid from brain, &c., 3 fl. oz.—Spinal cord: Meninges thickened, chronically inflamed. Spinal dura mater congested. Spinal pia mater thickened, particularly over the posterior aspect. Well-defined grey degeneration and induration of the posterior columns of the cord. This is most marked in the lower dorsal region, where the grey degeneration affects the entire width of the posterior columns, ceasing on each side with the posterior horn of grey matter and posterior root-zone; at least, extension to the lateral columns was not obvious in the sections examined. At this portion of the cord the posterior nerve-roots are grey and indurated. But as the grey degeneration is followed upwards, instead of reaching transversely from posterior nerve-root to posterior nerve-root, it gradually becomes limited to that portion of the transverse section which extends half-way from the posterior median fissure to the pos-

terior grey cornua, and finally, at the upper part of the cervical region, is almost confined to the slender posterior median columns. This limitation gives it something of the aspect of a secondary lesion here. The posterior roots of the cervical spinal nerves are of natural appearance and consistence. Above, the sclerotic change runs to the rib of the calamus scriptorius, where it ceases on the surface, and apparently ends, or dips into the floor of the fourth ventricle.

THE PATHOLOGY OF HEPATIC CIRRHOSIS.[1]

BY WM. ROBERT SMITH, M.D., F.R.S. ED., F.C.S.,
PHYSICIAN TO THE CHELTENHAM DISPENSARY.

BEFORE entering upon the subject matter proper of hepatic cirrhosis let me refer very briefly to the normal structure of the liver. It is a very large glandular organ situated in the right hypochondrium, weighing on an average about three pounds. It measures in its transverse diameter from ten to twelve inches, and from six to seven in its antero-posterior, and at the back part of the right lobe, which is always the thickest part, two and a half to three inches. Its upper surface is convex, and, owing to its capsule, is smooth, regular, and glistening, of a bluish-pink colour, whilst its under surface is concave and mapped out into several lobes by the various fissures. On section the liver is found to be of a chocolate colour, of a firm elastic consistence, and to be composed of lobules, which are, however, very indistinctly seen. The various openings are in great part those of the portal veins, the others being hepatic veins. Under the microscope the capsule is found to be attached to the liver by bands of connective tissue, which join the connective tissue of the stroma of the organ. The lobules are remarkable for the great indistinctness of their outline. This is their normal appearance. At the centre of each lobule is the opening of the hepatic vein. This varies very much in size. From it radiate the rows of liver cells which form the bulk of the substance of a lobule. The cells are nucleated protoplasts having no periplast, and more or less spheroidal in form, but their shape varies much, owing to pressure from their fellows. They are from the one-thousandth to the two thousandth of an inch in diameter. Round each cell is a small capillary bile-duct.

The hepatic artery ramifies in the middle part of the lobule, breaking up into a capillary network, which encloses the cells. The portal vein is distributed at the lobular periphery. For pathological purposes, then, the liver is divided into lobules, and the lobules into three zones: the inner, or zone of the hepatic vein; the middle, or zone of the hepatic artery, and the outer, or zone of the portal vein.

In cirrhosis of the liver the morbid appearances found in cirrhosis are of two kinds: in the one case the liver is reduced in size, when it is called the coarse cirrhotic—the small, hobnail, or gin-drinkers'; whilst in the second variety the liver is enlarged, when it is called the fine cirrhotic, the hypertrophic or large.

We will take the small variety first, the coarse cirrhotic. In this the liver is much reduced in size, being about one-third its normal state; it has also lost weight; very tough in consistence, resembling a piece of soaked leather more than anything else; it is hard and has a distinct fibrous feeling. The surface of the organ is very irregular, being marked with elevations varying more or less in size from the dimensions of half a millet seed to those of a small filbert. These elevations are rounded masses of fibrous tissue enclosing perhaps in some instances small portions of the liver parenchyma, and between these elevations are depressions where the capsule is found to be very much thickened; the edges of the organ are thinned, and finally become a mere indurated border containing no liver tissue.

On section very often great resistance is experienced, resembling that met with in dividing a scirrhous growth, and the same elevations are seen as on the surface. The organ is usually found jaundiced of a canary or olive green colour, whilst the whole of the cut surface appears to be beset with fibrous tissue; the large branches of the portal vein are usually much dilated and filled with blood.

[1] A paper read at the Gloucestershire Branch of the British Medical Association, with microscopical demonstrations.

Under the microscope the capsule is seen to be very irregular in outline, showing elevations and depressions. Below this the subcapsular tissue is much thickened; in some cases it is alone thickened, whilst certainly in the majority it is more thickened than the capsule. From the capsular depression bands of fibrous tissue proceed, which, as we trace them into the liver substance, are seen to divide dichotomously, enclosing within these divisions several lobules of the liver. These bands shortly contract very much, causing the depressions in the capsule, and sooner or later the destruction of certain of the cells by fatty degeneration.

The fibrous tissue is composed of three elements: first, of small, round, embryonic cells; second, of a large quantity of white fibrous tissue, yellow elastic tissue never being reproduced in the body; and, thirdly, of very delicate, spindle-shaped cells. If the fibrous tissue is young, the small, round, and spindle-shaped cells will be found in greatest abundance, whilst if the tissue be older the white fibrous tissue preponderates. No doubt part of this tissue arises from the connective tissue investing the individual lobules, but by far the greater part comes from the liver cells. In the first place, the nuclei of these cells are seen to enlarge considerably; this enlargement is rapidly followed by their division; very shortly then division of the whole cell takes place. This cycle of changes goes on over and over again, the nuclei being large, whilst the protoplast is small, until at last free nuclei are produced. These then elongate into spindle-shaped cells, and ultimately develop, into the white fibrous tissue. The remaining cells undergo atrophy from fatty degeneration, and so the whole of the cellular elements are destroyed.

The fibrous tissue is abundantly supplied with blood-vessels. In the section under the microscope the vessels will be seen both large and numerous. The smaller branches of the portal vein are in great part compressed or obliterated by the cicatricial tissue, whilst the area of distribution of the hepatic artery steadily increases. To this narrowing of the portal veins may be traced the dilatation of the larger branches and the subsequent congestion in the intestines and spleen, the ascites and other distressing symptoms. Owing to the increase in the distribution of the hepatic artery and the diminution in the size of the lobular portal capillaries, the bile is, to a great extent, elaborated from arterial blood.

The hepatic ducts, as a rule, remain pervious, the jaundice, which so frequently occurs in cirrhosis of the liver, especially towards the fatal termination of the disease, is most probably owing to a catarrh either of the hepatic duct or the ductus choledochus, or both, causing swelling of the mucous membrane, and consequent obstruction to the exit of the bile.

In the second variety of cirrhosis, the fine, hypertrophic, or large, the organ is found to be enlarged in size, whilst the surface is uniformly smooth, or but very finely granular. On section the organ is seen to be jaundiced, and much portal distension is present. The fibrous tissue, however, is more distributed, and each lobule is distinctly mapped out by a band of cicatricial tissue, enclosing and isolating it. This tissue does not undergo contraction to the extent so remarkably characteristic of the coarse variety, and consequently we do not find the irregularities of the surface, the elevations and depressions, which were such marked features in the other variety, nor do we notice in this form of the disease that extensive destruction of the cellular elements which was so noticeable in the other. The reason the organ is increased in size is that the tissue is so abundant it more than compensates for the loss occasioned by the destruction of the cells.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN.—The claims of this institution were, on Wednesday last, warmly advocated by the Prince of Wales, who presided at a dinner given at Willis's Rooms in aid of the funds of the hospital. The annual expenditure in working the charity is, it appears, nearly £2500 more than the present subscribed income; and there is at the present time a sum of £3000 required to meet the expense attending the purchase of freehold deemed necessary to complete the building. Over £2000 in contributions were announced at the meeting.

THE salary of Dr. Robinson, medical officer of the old workhouse, Lambeth, has been increased from £50 to £75 per annum.

PYÆMIA AFTER ENTERIC FEVER.

BY R. BRUCE LOW, M.D. EDIN.

THE occurrence of pyæmia in the course of enteric fever is of sufficient rarity to warrant me in placing the details of my case on record. I shall briefly relate the facts.

J. A——, aged fifty, a farmer, was attacked with enteric fever, and passed through the usual phases of this disease till the twenty-first day, when he had an alarming collapse. He was pulseless at the wrist, and the skin was bathed with a cold and clammy sweat, which was believed to be his "death agony." From these and other symptoms perforation was diagnosed, and an unfavourable prognosis was given. Restoratives, with other remedies, were prescribed, and he rallied. Two hours after the collapse his pulse was 140, and his temperature 97·2°. For the next seven days he remained free from pain, but with a slightly tympanitic abdomen; his stools were black at first, but gradually became pale and semi-solid, being studded with "scabs" on certain occasions, as stated by his wife. The temperature between the twenty-first and twenty-eighth days remained about normal; on the last-named day it was 99·8°. On the twenty-ninth day, or eight days after the collapse, he was seized with a most violent and prolonged rigor, followed by a very profuse perspiration, which saturated his night-shirt, and extended to the ticking of the bed on which he lay. The next day he had three severe rigors, followed by some copious sweats; and from this date, the twenty-ninth day of his primary illness, till the sixty-second (or thirty-three days from his first rigor) he continued to have rigors and sweats at more or less regular intervals. The morning, about nine o'clock, was the usual time of the attack. After the rigors had continued a week they began to miss a day, and, finally, they missed two days; but on all occasions the shiverings were of the most prolonged and most severe character, and were always followed by such sweatings as actually to cause the bed-ticking on which he lay to rot. The temperature, pulse, and respiration were taken regularly from the beginning of his illness for a period of sixty-five days, two or more observations being noted each day. After the first rigor the temperature rose to 103·4°, the pulse to 124. The highest point reached after a rigor was 105°, the highest point of pulse and respiration being respectively 160 and 52. It was noted that each rigor was followed, sooner or later, by the expectoration of a few mouthfuls of bloody sputum, which contained nearly always a small clot or coagulum about the size of a pea. This bloody sputum occurred only after a rigor, and at no other time during the illness; this fact is interesting as bearing on the diagnosis, as will be seen. The patient had severe diarrhœa after the twenty-eighth day, most offensive and at times containing blood. He had often vomiting before or after the rigors. No physical signs of consolidated lung could be made out. The right foot and leg became painful, and ultimately a large and painful swelling occurred in and around the ankle joint. He became now greatly prostrated, and could not even turn himself, and his motions were passed in bed. He often had a tendency to faint when the bowels were being moved. When the rigors missed a day the temperature remained normal, the pulse and respiration also came down. His skin became yellow and shrunken. He lay with his eyes shut and asked to be allowed to die without being disturbed. From this point he began to mend, and his last rigor is noted on the sixtieth day of his illness. For three months after this the patient was unable to go out of doors, but now he is able to go about on his farm. He is, however, still in feeble health.

Although writers on the subject of pyæmia admit that it may occur as a sequel of typhus, variola, or enteric fever, yet doubt is often thrown on the records of these cases. It is asserted that the diagnosis of enteric fever has not in these cases been satisfactorily made out, or if it has, that the so-called pyæmia has been only a relapse of the fever, an acute pneumonia or the like. That the case I have just related was in the first instance purely enteric is proved by the clinical history of the case, the presence of the usual symptoms, the spots, the diarrhœa, the temperature, &c. Two medical men saw the case with me, and concurred in the diagnosis. Enteric fever had seized twelve persons already in the neighbourhood. Seven of these cases were in the same street. During this illness the patient's eldest daughter, aged twenty-one, who had helped to nurse her father, took enteric fever, and died from hæmorrhage from the bowels on the sixteenth day of her attack.

In discussing the diagnosis of pyæmia I may state that the patient had a small bedsore on his sacrum before the collapse came on. As to pyæmia being the secondary affection, I point out the occurrence of the prolonged and recurrent rigors, followed by the profuse perspirations and the apparently normal condition between the rigors; the local lesions in the lungs, as shown by the expectoration of the extravasations, or pulmonary clots, which had ruptured the capillary network and thus escaped, and also by the inflammation and threatened suppuration of the ankle joint. The absence of other local morbid manifestations may be accounted for by the fact that in a certain class of cases of pyæmia the lungs are the only organs which are affected by these extravasations, and it is well known that the lungs are almost invariably affected by these deposits in pyæmia. Again, our patient had the intense prostration, the sickness, the bloody stools, the sallow countenance, and so on. The temperature showed a characteristic change from the typical enteric form. After the rigors it always rose, and it invariably on this account had its highest point in the forenoon and its lowest in the evening. The high pulse (160) after a rigor, and the quickened respiration (52), returning to almost normal in the absence of the rigors, are also points worthy of remark. What was the immediate cause of the pyæmic infection I cannot pretend to say, but it seems to have proceeded either from the lesion of the intestines, perforation, or abscess from local peritonitis in the region of an ulcerated Peyer's patch, or it may have resulted from purulent infection from the small bedsore on the sacrum. There is no ague in the district; the patient had never been abroad.

The house in which the patient lived was extremely defective in its construction. The old thatched roof was rotten and admitted rain in many places, the walls were blackened with damp, and the only ventilation in the sick-room was by means of the room door. There was no fireplace in this damp bedchamber. The usual sanitary defects of these rural homesteads were present in an exaggerated form. I may say that no puerperal septicæmia or surgical fever had been found in the district for many years, and that therefore there could have been no infection from without. The treatment adopted was the ordinary rational treatment of such cases, known to all medical men who are interested in the subject. I need not, therefore, recapitulate; but only mention that quinine, stimulants, and the rigid enforcement of all possible hygienic measures, with an almost unvaried diet of milk, soda-water, and brandy (of which combination he never tired), were the remedies chiefly relied upon.

Helmsley, Yorks.

CASE OF PAPILLOMA OF FAUCES; REMOVAL.

BY J. LLOYD, M.B., M.S. DURH., F.R.C.S. ENG.

W. J——, aged seventeen years, a strong robust youth, consulted me about six months ago, suffering from sore-throat, evidently the result of catarrh. He soon shook off this condition under simple treatment, but it was followed in three or four days by an attack of monarticular rheumatism, the joint disease being confined entirely to the left knee, and accompanied by high temperature, loaded urine, and sour-smelling sweatings. I have related these few facts as illustrating a point to which attention has recently been called, the association of sore-throat with acute rheumatism. When examining his throat I noticed a growth attached to the right anterior pillar of the fauces; it was the size of a horse-bean, cauliflower-like in its surface, pale in colour, covered by a mucous membrane similar to that lining the general buccal cavity; it was pedunculated, soft and freely movable, lay between the root of the tongue and the fauces, and was painless and not very sensitive to pressure. He says he first noticed it about eighteen months ago, that it gives him neither pain nor inconvenience; he thinks it grows a little larger, but decidedly objects to have anything done for it, as he has been told that if it is cut he may bleed to death.

I had occasion to see this patient again early in March for a small superficial abscess of the cheek, and at the same time

I examined his faucial tumour. It was decidedly larger than when I saw it between five and six months previously. It was now the size of a marble, otherwise it had not altered in appearance. At the patient's request I removed it by simply catching it with vulsellum forceps and cutting off with curved scissors, being careful to take away the entire thickness of mucous membrane at the base of the pedicle. There was scarcely any hæmorrhage and little pain, the whole thing being too simple to deserve the name of "operation." There is now no sign of recurrence (two months afterwards), and no mark to indicate from where the tumour was removed. To the naked eye, after removal, the little growth had the characteristic appearances of papilloma; it was soft, compressible and branched, and very much resembling an ordinary gonorrhœal wart. It was composed of connective tissue covered by elongated papillæ with their surrounding thick layer of squamous epithelium.

I have considered this case, although not a serious one at the time of its treatment, well worthy of record from its comparative rarity and from the unmistakable features possessed by the growth. Although not strictly speaking a tumour of the pharynx, yet from its position it may have given rise to some of the accidents incidental to those tumours, such as impaction in the larynx, &c., and may also have been expected to resemble them in structure. I have been unable to find any case recorded as papilloma, undoubtedly the variety of tumour under which the present one would be classified by modern pathologists. The "soft fibrous tumour," described by Billroth as occurring almost exclusively in the cutis, approaches in appearance and structure the nearest to my case; this kind of tumour consists, however, of a maximum amount of connective tissue with a minimum of papillary growth, whereas in my specimen there is a maximum of papillary hypertrophy with very little connective tissue development. Another point I should like to mention is that in excision of any papillomatous growth less hæmorrhage follows its removal when the whole thickness of skin or mucous membrane is taken away than when the incision is carried more superficially. This fact was well illustrated in a case of gonorrhœal papillomata, which I recently removed from a young woman, where the growths extended from the pubes to the coccyx, completely obscuring the pelvic outlets and being as large as two closed adult fists. The tumours were rapidly excised with scissors, the whole thickness of the skin at their bases being taken away; the hæmorrhage was easily controlled, and the patient made a quick and perfect recovery. This treatment also does away with the necessity of applying caustics to the bases from which the tumours are cut away.

Birmingham.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

INTRA-UTERINE FIBROID TUMOUR, SESSILE; ITS ENTIRE DISCHARGE BY EXFOLIATION PROMOTED BY INCISIONS OF GRADUATED DEPTH INTO THE GROWTH.

(Under the care of Dr. HALL DAVIS.)

FOR the following notes we are indebted to Mr. W. E. Dixon, obstetric physician's assistant.

Elizabeth J——, aged twenty-eight, single, of dark complexion, and medium stature, was admitted on May 9th, 1879, on account of uterine hæmorrhage, of which she had been the subject for the last five months, most copiously at the menstrual periods.

On admission, the muscles were flabby, the lips, gums, and tongue pallid. Pulse 80; temperature 99°. An enlargement of regular outline in the central position could be distinctly felt on abdominal palpation, extending upwards from the pelvis to within an inch of the umbilicus. Vaginal examination discovered an enlargement of the body of the uterus, with an elongation of its neck. The axis of the uterus was very nearly in the axis of the pelvic brim. The uterus was mobile; its orifice would not admit the passage of the forefinger. The patient complained of aching and shooting pains in the hypogastric and sacral regions, reaching down to the knees. The patient was debilitated, constipated, the subject of palpitation of the heart, and of cardiac and arterial murmurs due to anæmia.

The bowels were first fully relieved by enemata and mild aperients. The os uteri was then gradully dilated by laminaria and sponge tents. The os uteri was thus at length sufficiently dilated to admit of the passage through it into the cavity of the uterus of the index-finger, and around the free surface of the tumour. This was felt bulging inwards from the anterior wall of the uterus, to which it was found attached sessile. Dr. Davis attempted to detach it from the uterus with the fingers, but its intimate union made that endeavour unsuccessful. The depth of the cavity, taken by the uterine sound, measured four inches. The patient was now placed under anæsthesia by ether, and the metrotome introduced into the uterine cavity, the knife being projected to the third of an inch, at the same time applied to the tumour, and drawn down through it; the os was also intentionally incised while withdrawing the metrotome.

No hæmorrhage of any consequence followed, but some pain ensuing was subdued by twenty minims of Battley's sedative solution. The uterus was washed out daily with Condy's fluid. During the following days portions of the tumour were discharged. The pulse generally was 100; the temperature from 99° to 102·6°.

On May 30th a repetition of the previous operation was resorted to under ether, after dilatation of the uterine orifice, as the tumour had not been wholly cast off, and therefore the cause of the hæmorrhages was not removed. More of the growth was discharged; some febrile disturbance followed, with a temperature of 103°, but this soon subsided.

On June 12th a re-examination discovered as yet a portion of the growth remaining, which, being incised, was entirely expelled, leaving the uterus perfectly free from all remains of the tumour, as ascertained by careful examination of the interior of the uterus.

No hæmorrhage had recurred since the first operation.

Note.—Since Aug. 11th the patient had been able to sit up daily, a tonic and restorative treatment having been pursued. On Aug. 25th she was sent to her home near Droitwich for further convalescence. Several months subsequently, having received a proposal of marriage, she returned to the hospital for an opinion as to her then condition and as to the question of matrimony. Dr. Davis found the uterus had quite subsided into the pelvis, and learnt that the hæmorrhage had not recurred even at the menstrual periods. She was informed that she might consider herself cured, and could arrange for her marriage after a further accession of strength.

Another case of sessile intra-uterine fibroid, equally therefore non-removable by the écraseur, had been in the hospital under Dr. Davis, but in which one section only of the growth had been followed by the expulsion after a few days' interval of the entire mass, and thus of the removal of the cause of heavy losses of blood.

INTRA-UTERINE AND INTRA-MURAL FIBROID OR MYOMA, REMOVED BY ENUCLEATION.

(Under the care of Dr. HALL DAVIS.)

For the following notes we are indebted to Mr. R. M. Webster, obstetric physician's assistant.

Florence K——, aged thirty-five, married, stout, a blonde, blanched, was admitted on Feb. 21st, 1881. Her father died of phthisis; mother, brothers, and sisters healthy. Her menstrual function commenced at the age of twelve, and recurred at intervals of three weeks, but not profusely nor painfully. She married at nineteen, but did not conceive till seven years afterwards, when she had a premature labour through falling downstairs. A year later she had at full term her only child, now seven and a half years old.

At the end of September, 1880, the catamenia commenced to recur every fortnight, and profusely, lasting from nine to twelve days, attended by blood-clots. She was at first, for five days, an out-patient, but was then advised to come into the hospital. On admission she had all the appearances of anæmia. Pulse 100; temperature 96°; great pallor of surface and of the exposed mucous membrane; breath sounds

generally and percussion note normal; a few crepitant râles at bases of lungs behind were alone heard; there was a slight cough; a systolic murmur heard all over the cardiac region and slightly in left axilla; no venous hum heard above the clavicles. Vaginal examination of the uterus showed it to be bulky and suspended below normal level in the pelvis. The os uteri just admitted the index-finger, and within the uterine cavity was felt a smooth, dense fleshy body. The sound passed in beyond the normal depth, and could be swept around the enclosed tumour. The uterus could not be perceived above the pubes. Urine: sp. gr. 1027, acid, slightly albuminous on submitting it to the action of heat and nitric acid. Bowels constipated; tongue, besides being blanched, slightly furred; some headache.

To correct an offensive uterine discharge a solution of Condy's fluid was injected and an aperient given; guarana was administered at intervals with relief to the headache.

On the 24th and 25th, after washing out the uterus, sponge tents were inserted within the neck of the uterus, between it and the polypus, and changed for fresh ones of larger size at intervals of three or four hours.

When the required dilatation had been effected the single wire loop of an écraseur was adjusted around the polypus, and the wire gradually tightened till it crushed through its substance. On re-examination it was found that only about one-third of the growth had been removed. Therefore the loop was immediately again applied, pushed up over the tumour, the uterus being at the same time depressed, and the wire was tightened close to the uterine surface, but before it had made its way half through the dragging on the mass led to enucleation of the growth at the point of its attachment, which appeared to be situated within the uterine wall, and presented at the site of its connexion a convex surface. The patient was placed under anæsthesia by ether during the second application of the écraseur, as she had become restless. The entire polypus, which proved to be a myoma, was of the size of a full-sized fowl's egg. The uterus was afterwards washed out with a solution of Condy's fluid morning and evening as long as necessary, and the patient made a good recovery under ordinary treatment and a generous diet, completed by bitter and chalybeate tonic, being discharged convalescent on March 11th. About four weeks later she visited the hospital again with scarcely any pallor, and had had a normal period. A few weeks later she again applied, but only to assure us of her complete recovery and thankfulness. The anæmic murmurs had entirely vanished.

ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

RHEUMATIC FEVER WITH HYPERPYREXIA AND COMA; COOL BATH; CURE.

(Under the care of Dr. CARTER.)

EMMA R——, aged thirty-three, married and the mothe of a large family, was admitted on December 18th, 1880 suffering from her first attack of rheumatic fever. She had had slight pains for about ten days, but had only been confined to bed since the 13th. For the first three days the case presented nothing special beyond the fact that slight noise in the head was complained of before treatment was commenced, and that she had not slept for several nights owing to the intensity of the pain in the larger joints. Beyond this sleeplessness, which was easily accounted for, and the stight tinnitus there was nothing in her appearance, symptoms, or antecedent history leading to the anticipation of cerebral disturbance. She was a well-nourished, healthy-looking woman. Bowels regular; heart's sounds normal; pulse 104; respiration 28; temperature 100·2° at 11 A.M. A milk diet was ordered. The joints were wrapped in cotton-wool, and at 2.30 P.M. she commenced taking a mixture containing in each dose twenty grains of salicylate of soda and twenty minims of bromhydric acid. The first six doses were given at intervals of an hour, and the temperature had fallen from 101·8° at 2.30 P.M., to 99° at midnight. After the sixth dose the medicine was given every third hour. The pains, which had been so severe that all pressure of the bedclothes had to be taken off the inflamed joints, were greatly relieved, but it was noticed that with this relief and the fall of the temperature which accompanied it there was no corresponding decline in the pulse, which at midnight was still 114, and during the next two days varied from 114 to 122, the temperature being generally low, and only once for a short time reaching 101°. After the ninth dose of medicine she complained of deafness and giddiness; the respiration became somewhat sighing, and she vomited slightly at 4.30 P.M. on the 19th. Upon this the medicine was ordered to be given every fourth hour, and in soda-water. She again vomited at 10.15 P.M., but afterwards passed a good night. During the day the face had been flushed, and she had perspired profusely. On the 20th she was quite free from pain, had less noise in the head, but, as she had again vomited twice, and still complained of giddiness and deafness, the medicine was discontinued at 2 P.M. At 5.30 she for the first time became delirious. Immediately after the commencement of the delirium, which was at first mild, the temperature was only 101°, but whether it rose during the next few hours is uncertain, as her violence soon became such as to prevent the possibility of using the thermometer. To the hand, however, the skin felt quite cool. As she obstinately refused to take either food or medicine she was brought under the influence of chloroform, though with much difficulty, in consequence of her violence; and while unconscious two attempts were made to introduce enemata containing chloral hydrate and bromide of potassium into the rectum, but these were not retained a moment. Immediately on coming from under the influence of the chloroform she became as violent as ever; it was once more applied, therefore, and a quarter of a grain of acetate of morphia injected hypodermically. Further attempts, made later on, to introduce nutrient enemata into the rectum were unsuccessful. She slept well, but the temperature began quickly to rise, and by 2.10 A.M. of the 21st was found to be 105°, when the surface of the body was sponged with tepid water. The temperature fell under the sponging, which was twice repeated, to 100·6° at 5.30 A.M. At 6.30 she awoke, when the house-surgeon, finding her still delirious and refusing to take either food or medicine, again injected a quarter of a grain of acetate of morphia. At 7.45 the temperature was 106·2°. By 10.50 it had fallen to 104·4°, but at 11.50 was 107°. The patient was then deeply comatose, and unable to be roused by any external stimulus. It was not quite clear how long this very high temperature had lasted, as an hour had been allowed to elapse between the last two observations, and during that time an increase of nearly three degrees had taken place. She was immediately put into a bath at 90° F., while cold water was steadily poured over her head, and the temperature of the bath reduced by also running in cold water. She was in the bath an hour. In about twenty-five minutes, her body temperature having fallen to 103°, she became conscious, and ten minutes before being taken out made some rational observation and drank a little brandy-and-water—the first drink or nourishment of any kind that had been taken for twenty hours. When removed from the bath her temperature was 99·6°, and fifteen minutes afterwards 98·4°. She then took some warm beef-tea, and during the afternoon plenty of warm milk. The pulse for the first time since her admission fell to below 100. After this there was no difficulty. She slept well on the night of the bath; had slight pneumonia of the right base on the 22nd, which ran a very mild course and disappeared in a few days, to be followed by a moderate return of her rheumatic symptoms. These in turn were easily subdued, apparently by the use of smaller doses of the salicylate, and after a few weeks' residence she was dismissed quite well, no cardiac complications having been developed.

There can be no question that but for the bathing at midday on the 21st this patient would never have rallied from the state of coma, with hyperpyrexia, into which she had then passed.

STOCKTON HOSPITAL.

AMPUTATION BELOW THE KNEE IN WHICH NO LIGATURES WERE REQUIRED; RECOVERY.

(Under the care of Dr. FOSS.)

FOR the notes of the following cases we are indebted to Mr. John Hassall, M.B., house-surgeon.

J. H——, aged ten years, a school-girl, was admitted Sept. 18th, 1880. The girl was crossing the railway, when an engine struck her on the right side of the forehead and knocked her down. She rolled over to save her body, but was unable to get her left leg away in time to prevent the whole train passing over it. She was first removed home, and subsequently taken to the hospital. During this time a considerable amount of blood had been lost.

On admission severe shock was present. The face was

pale and the extremities cold. The pulse was feeble. On the inner side of the left limb there was a deep wound commencing about the junction of the middle and lower thirds of the leg which ran along the posterior border of the tibia round the external malleolus and across the ankle to the outer side of the foot. The ankle-joint was opened into; the tarsal bones were comminuted; the vessels were torn across, and the tendons dragged out of their sheaths.

The patient having been placed under chloroform, Dr. Foss amputated through the upper third of the leg. The posterior flap was made by transfixion, and the anterior by cutting from without inwards, and consisted chiefly of skin. The limb having been removed, it was noticed that there was no bleeding from the flaps. The pulse could not be felt either in the femoral or radial artery. The breathing was regular. The surface of the body was cold. In a little time the pulse returned at the wrist, and a few seconds later could be felt in the groin. But still there was no hæmorrhage from the stump, so the flaps were brought together with silver sutures and the patient removed to bed.

She made a steady recovery, somewhat delayed by two granulating patches, which refused to heal until skin grafts were placed on them.

AMPUTATION THROUGH THE LOWER THIRD OF THE THIGH; DEATH FROM SECONDARY HÆMORRHAGE FIVE DAYS AFTERWARDS.

(Under the care of Dr. FOSS.)

J. T——, aged forty-six years, was admitted to the hospital on March 24th, 1881, at 3 A.M. The patient's right leg had been caught in some machinery and severely crushed. The tibia and fibula were comminuted from the upper third downwards. The vessels were torn across, and these, together with the skin, were torn and contused. Chloroform having been administered, Dr. Foss amputated the thigh at a little above the condyles. The flaps being formed according to Teale's method, only the femoral artery required a ligature. The flaps were brought together by silver wire sutures. Not much blood was lost during the operation, but apparently before being brought in he had lost some, and at this time was suffering from this and a good amount of shock. The same morning, at nine o'clock, the temperature was 98·2°. In the evening the temperature was the same; the pulse was 116. A sedative draught was prescribed. He slept during the night and next morning. Pulse 120; temperature 100·4°. The dressings were stained with blood. Complained of pain in the stump, also in the other leg.

On the 27th the wound was dressed for the first time. The wound looked well; there was no tension or sloughing of flaps; no hæmorrhage.

About 10 A.M. next day the nurse noticed that he had fainted, and it was discovered that there was bleeding from the stump. Notwithstanding stimulants, he went into a state of collapse, and died in about half an hour. The quantity of blood lost was not large, but considering his condition, it was sufficient to cause death. A hurried examination of the stump was made after death, but no point from which the hæmorrhage could have come was observed. The ligature was firmly fixed in the femoral artery, and there was an organised clot inside it.

THE LEVEE.—The following members of the medical profession were present at the levée held at St. James's Palace on Monday last:—Surgeon R. F. Adams, Surgeon T. Archer, Surgeon J. Battersby, Surgeon E. Butt, Surgeon L. H. Carter, Surgeon G. J. Coates, Surgeon S. A. Crick, Surgeon-Major J. S. Comyn, M.B., Surgeon-Major A. F. Churchill, Surgeon J. G. Crofts, Surgeon G. W. H. Cook, Surgeon A. B. Cottell, Surgeon F. A. B. Daly, Surgeon J. R. Dodd, Dr. Peter Eade (Sheriff of Norwich), Surgeon-Major B. Franklin, Surgeon-General S. H. Fasson, Surgeon R. W. Ford, Surgeon W. Deane-Freeman, Surgeon S. G. Hamilton, Surgeon-Major H. F. Hensman, Surgeon-Major E. Hoile, Deputy Surgeon-General F. Holton, Surgeon A. G. Kay, Surgeon R. C. K. Laffan, Surgeon G. S. Lewis, Surgeon C. A. P. Mittchell, Surgeon R. E. R. Morse, Surgeon H. J. R. Moberly, Surgeon-Major S. Moore, Surgeon-Major E. M'Crystal, Surgeon T. Mayne, Surgeon T. C. Nugent, Dr. Ord, Surgeon George Turner Phillips, Surgeon-Major William H. Pickford, M.B, Surgeon A. S. Rose, Surgeon S. Salaman, Surgeon A. T. Sloggett, Surgeon G. E. Twiss, Surgeon T. B. A. Tuckey, and Surgeon T. P. Woodhouse.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Hepatotomy.—Removal of the Uterine Appendages.

THE ordinary meeting of the Medical and Chirurgical Society was held on Tuesday, May 24th, Dr. Barclay, President, in the chair. Two papers, by Mr. Lawson Tait, on subjects of considerable interest in connexion with abdominal surgery, were read. Mr. Morrant Baker exhibited a case of bromide of potassium rash.

"On Three Cases of Hepatotomy," by Mr. LAWSON TAIT (Birmingham). This paper contains the narration of three cases in which the author performed operations on the liver similar to those in two cases already received by the Society. Abdominal section was performed in all three. The liver was found not to be adherent to the parietes in any of them; the contents of the tumours were removed, and the edges of the wounds in the liver were stitched by continuous suture to the edges of the wounds in the abdominal wall, and drainage-tubes were fastened in. Two of the cases were operated upon for hydatids of the liver, and the other for a large cystic abscess enclosing a loose piece of liver tissue, weighing about an ounce, and which had apparently been a slough. All three patients made good recoveries.—Mr. H. MORRIS was surprised to hear that Mr. Lawson Tait preferred abdominal section to aspiration for unilocular hydatid cyst. During the last few months he had had two cases in which two aspirations had been successful. In one case eighteen and twenty ounces respectively were drawn off; in the other, under Dr. Powell's care, three or four ounces were drawn off by him on the second occasion, and both were, up to the present, cured. He should certainly hesitate to resort to abdominal section at first in such cases. There are no doubt other cases in which aspiration is quite hopeless.—Dr. HEYWOOD SMITH asked if there was any troublesome hæmorrhage from the incision through the liver, and whether pressure was sufficient to control it, or whether the vessels could be taken up. He wished to know if sinuses followed the use of drainage-tubes in such cases.—Mr. HULKE thought the great risk was the escape of the contents of the cyst into the peritoneal cavity, and he asked how Mr. Tait quite prevented this. He thought all surgeons must at times have regretted not making freer incisions into hydatids of the liver, especially when suppurating.—Mr. LAWSON TAIT replied that the hæmorrhage was stopped by pressure. He had had no trouble in now six cases of operation on the liver. He would never again aspirate liver hydatids; he had no fear of abdominal section, but he had fear of aspiration, and he had heard that aspiration rarely cured hydatid cysts. Styrian surgeons especially had this experience. The tapping does not affect the cyst at all, which may at any time refill. In his monocystic case he believed the patient was cured. His assistant seized the cyst with forceps on each side, and placed a sponge on each side, and so prevented any escape into the peritoneum.

"On Removal of Uterine Appendages for the Arrest of Uterine Hæmorrhages," by Mr. LAWSON TAIT. The author commenced his paper by referring to the use of the statistical method in testing the real value of operations, and especially instanced ovariotomy as one which would not have obtained the complete acceptance it has received had not the careful statistical method of Mr. Spencer Wells shown that its results could be favourably compared with those of every other major operation in surgery. Mr. Lawson Tait wished to lay his experience in another portion of the department of abdominal surgery before the Society, in order to obtain its decision as a guide for the future for himself and others. After protracted trials of drugs for the arrest of uterine hæmorrhage, he had come to the conclusion that all were absolutely without effect, save ergot and two salts of potash, the chlorate and the bromide, and these were by no means uniformly successful in giving permanent relief. In all the cases he had to relate these drugs had been fully tried before the question of operating was discussed. He had entitled his paper "The Removal of the Uterine Appendages," because his experience seemed to show that the removal of the ovaries was not a certain method of arresting

menstruation, while removal of the tubes as well seemed to be so. The author then related thirty-one cases, of which four were fatal, twenty-seven recovering from the operation. A summary table was appended to the paper, which was a complete list of the operations and results. The author summed up with the following conclusions, which he considered might be legitimately drawn from them. 1. That, so far as its primary results are concerned, removal of the uterine appendages for the arrest of intractable uterine hæmorrhage is an operation which is quite as easily justified as any of the major operations of surgery. 2. That so far as its secondary results are yet known it is an operation which yields abundant encouragement for its further trial; as conclusions which are indicated but not wholly proved, he thought he might formulate a statement that removal of the ovaries alone is not sufficient to arrest menstruation, but that removal of both tubes and ovaries does at once arrest it. So far as some of these cases have gone the arrest would seem to be permanent. This conclusion is quite in harmony with what is known of removal of both ovaries for large cystomata, for in such cases the tubes are almost uniformly included in the clamp or ligature. Three at least of the cases, and probably two others, show that the arrest of menstruation by this means leads or may lead to the atrophy of uterine myoma. Finally, there is some close connexion, here pointed out, he believed, for the first time, and worthy of very close study, between uterine myoma and its accompanying hæmorrhages and cystic disease of the ovaries. In two of the cases cystic disease seemed to be the cause of the hæmorrhage without any myoma intervening. One other conclusion, he thought, was justified, that the whole subject is worthy of careful study, and should not be made the subject of premature and hostile conclusions. Dr. GRAILY HEWITT remarked that the subject was worthy of the closest possible study. He did not consider that Mr. Tait was in the habit of allowing due importance to conditions, often observed by him to be of moment in these cases, especially the causation of the hæmorrhages. Mr. Tait appeared not to assign any importance to the uterus in cases of hæmorrhage, but takes for granted that when any difficulties arise in the treatment of uterine disease, flexions, &c., the ovaries should be removed.—Mr. TAIT protested that his paper did not give any sanction to such a statement.—Dr. HEWITT said he gathered that from the paper; cases were regarded as incurable except by removal of the ovary, but his own experience was that hæmorrhage is very frequent in cases of uterine displacement, and is curable without removal of the ovary. Two classes of cases are grouped together in the paper: those in which there are tumours of the uterus, and those in which there are not uterine tumours, and in many of which there are displacements and cystic disease of ovary. In the cases of uterine myoma there are some in which this operation is justifiable, although he had seen cure by other means in cases as bad as any quoted. He had seen the other class of cases treated with success without this operation, by dealing with the uterus itself. One of Mr. Tait's cases was under his own care at one time; the patient came to him in a state of intense prostration, great vomiting, emaciation, and was threatened with phthisis; locomotion was impossible; the uterus was decidedly anteflexed. She was three times under his care, and was much better when she left his care, and he hoped to get her quite well; it was anteflexion of uterus with a very soft, relaxed condition of the organ. He could conceive of cases in which this operation was justifiable, but giving Mr. Tait full credit for his skill and for his record, he was sure there were many cases where correction of displacement of the uterus cured the symptoms.—Mr. TAIT said only two cases had flexion, both of which had been under Dr. Hewitt's own care.—Dr. HEWITT thought he heard four or five such cases read out.—Mr. TAIT said in only two cases was the uterus found flexed and replaced and stitched to the wound.—Dr. BARCLAY asked if Mr. Tait wished to recommend the operation where the ovaries were healthy, or only where they were diseased.—Dr. HEYWOOD SMITH said it was very important to recognise the condition of the ovary before the operation. In about sixteen of the cases the ovaries were cystic; the question arose as to whether there was not more tendency to hæmorrhage with commencing cysts in both ovaries than in advanced cystoma. He asked if the hæmorrhage was slight or great in separating the pelvic adhesions of diseased ovaries. He thought very slight alterations in the size, shape, and texture of the ovaries could be recognised before operation, and he thought normal ovaries were very rarely removed in this operation. The cure of flexions no doubt relieved the symptoms directly due to the uterus, but did not affect the ovarian trouble.—Dr. HICKINBOTHAM had seen many of Mr. Tait's cases. He thought sufficient stress had not been laid upon the previous treatment these patients had undergone before the operation. At first he had great doubt about the operation, and shrank from countenancing it; but he felt there were cases, in which hæmorrhage persists and threatens life after all other means have been tried, in which this operation promises a certain and tolerably safe cure. This operation, of course, ought to be hedged about with many precautions.—Mr. LAWSON TAIT replied that he had been told that the operation was liable to abuse, which meant that it would be performed simply for the sake of the fee, or that it would be done to protect women from the possibility of getting children. He thought no surgeon would be found thus to abuse it. This argument, too, was very dangerous. He would like to know how many unnecessary pessaries were applied; and it could be applied in the same manner to many other forms of treatment. The operation will always remain a hospital operation, and it has been quite the most unremunerative of all in his practice. Again, it has been said that it unsexes a woman; but the ovaries removed show that they are so diseased as to prevent bearing children, and the majority of the patients had either been quite barren, or had not had any children for many years, while it does not unfit women for marriage. The patient alluded to by Dr. Hewitt came to him suffering from a severe retroflexion. There could be no real division between ovariotomy and oöphorectomy, as none can say where one ends and the other begins. In one case only had he severe hæmorrhage, which was, however, controlled by pressure of sponges; no adhesions add to the danger of the operation. He never used drainage-tubes in the pelvis.

The meeting then adjourned.

HARVEIAN SOCIETY OF LONDON.

AT the meeting on April 21st, Mr. Henry Power, President, in the chair, Mr. HENRY MORRIS read a paper on Naso-pharyngeal Polypi. He selected six cases which had come under his care within the last few years to illustrate—1. The different kinds of naso-pharyngeal or suffocating polypi. 2. The effects of these growths at different periods of their progress. 3. The various operations which are suitable to the different cases. Of these cases three have occurred in females and three in males. In four of the patients the affection commenced either before or just about the period of puberty. In three of these the polypus was of the firm fibrous variety, two of the patients being boys and one a girl. In the fourth the polypus was of the fibro-cellular kind, being somewhat firmer and tougher than the nasal gelatinous variety. The other two cases (4 and 5) were cancerous in character and occurred in adults. In Case 4 the patient was a man in whom the disease began about the fortieth year, and though of a cancerous nature, and persistently recurring after removal, he continued alive for more than five years; the operations, if they did not cure him, nevertheless kept off death from time to time and restored him, for lengthened periods, to a condition of comfort. Case 5 was also cancerous, and the disease affected a woman when in her fifty-eighth year. It was very rapid in its progress, and ended fatally within a year, the operation having had but little effect in prolonging life, but much in relieving her of very great suffering during the last months of her existence. Four of these cases support the view that the fibrous varieties attack generally young adults, though they do not give colour to the opinion that they are peculiar to the male sex, or that they always exist singly. Case 1, for instance, is opposed to both these views, the patient being a young girl and the tumours being multiple. Nor does this case give any support to the idea, that if these polypi have been persistently removed up to the age at which one no longer finds them commencing, they may be permanently exterminated, unless, indeed, this age is much beyond puberty. For this patient, in whom the disease began when fifteen years and a half old, has now, in her twenty-second year, a recurrence severe enough to prevent her lying down to sleep, and which before the last opera-

tion (Feb. 1880) occasionally threatened to choke her. Although we have to wait for adult life before we can expect to find the nature of these growths distinctly cancerous, it still may be considered far from inappropriate to apply the term malignant to some of these fibrous polypi in young boys and girls. Whether we consider the persistent recurrences, the destruction of tissues, the interference with the most important functions of organic life, the frequent hæmorrhages and the disgusting odour, and the decomposition of blood-clot and sloughing parts of the tumour, and finally the general typhoid condition which these several circumstances bring about—these polypi, though slower in effecting their fatal purpose, are as surely malignant in their results as cancer itself.—Mr. POWER asked if chloride of zinc, as suggested by the late Mr. De Morgan, had been applied in any of these cases.—Mr. PYE thought the fifth case could hardly be termed a naso-pharyngeal polypus.—Mr. FIELD asked Mr. Morris if he could recommend any plan of after-treatment to prevent a recurrence of the growth.—Mr. MORRIS, in answer to the President, said he preferred the application of the perchloride of iron to chloride of zinc. For after-treatment he occasionally used tannic acid in the form of a snuff.

Mr. TEEVAN read a paper on Interference with Micturition, the result of Prostatic Disease. It might be caused by — 1, acute inflammation; 2, chronic inflammation; 3, various alterations in bulk of the lobes of the organ; 4, stone descending into, or originating in the prostate; 5, malignant disease. All the above might in some way or other modify the act of micturition. Acute inflammation might be caused by the extension of gonorrhœal trouble, powerful injections, or tubercular and pyæmic deposits. If the patient could not micturate, an india-rubber catheter ought to be at once introduced, as it was the instrument which caused the least irritation, but it was not always possible to pass it in such cases, and if it failed a soft olivary catheter was indicated. By clearing out the rectum, filling it with ice, and placing half a dozen leeches on the perineum, the inflammation could usually be reduced, and the further employment of the catheter rendered unnecessary. If abscess formed it generally burst into the urethra, but if fluctuation could be detected in the rectum or perineum the knife ought to be at once applied. Chronic inflammation might follow gonorrhœa, or be caused by rectal trouble. The dull aching pain in the perineum and anus, associated with increased frequency of urination, was very wearying to a patient. The application of a few drops of a solution of sulphate of copper (five to ten grains to the ounce) to the prostatic urethra twice a week would usually relieve the symptoms. If it failed repeated blisterings of the perineum would generally effect a cure.—Alterations in size of the different lobes of the prostate: It was of the utmost importance to detect prostatic obstruction early, for if it were not attended to the bladder would become hypertrophied and fasciculated, and the patient condemned to a life of misery. The earliest symptoms of commencing trouble were nocturnal frequency of micturition and the tendency of the urine to fall vertically between the patient's legs instead of being ejected in the arc of a circle. The sufferer might be taught to relieve his bladder night and morning with a soft olivary catheter. It could not be too strongly borne in mind that dribbling of urine in middle-aged and old men meant retention, not incontinence. If the practitioner were armed with a bougie-catheter it was not necessary in cases of retention from prostatic obstruction to diagnose which particular lobe of the organ was enlarged, for the bougie would mount the hypertrophied median lobe, or pass round the projecting lateral lobe. The catheter could then be screwed on to the bougie, and made to follow the latter into the bladder, and so relieve the patient. A stone descending from the bladder might be arrested in the prostate, or have originated there. It was very important to make an accurate diagnosis, for cases had come under his notice which had been treated for retention from stricture where the obstruction was a stone in the prostate. If a metal instrument were not used the mistake might easily occur, for the sensation transmitted by the passage of a soft catheter through a urethra, narrowed by a calculus in it, was almost similar to that conveyed by the instrument when introduced through a tight stricture. When a man, who up to the time of the stoppage had always been able to pass a full stream of urine, was seized with retention, without any premonitory symptoms, the impaction of a stone in the prostatic urethra ought to be suspected. When a calculus was arrested in the deeper portion of the urethra it ought to be pushed back into the bladder with a wax bougie, and then crushed. Malignant disease of the prostate was fortunately very rare. It might not be attended by any pain, and could usually be detected by rectal examination disclosing the existence of a hard nodule in one side of the prostate, and not on the other. This want of symmetry was a most valuable diagnostic sign. The few cases which had come under his notice were all of the scirrhous kind.

The meeting then adjourned.

Reviews and Notices of Books.

A Treatise on the Materia Medica and Therapeutics of the Skin. By HENRY F. PIFFARD, A.M., M.D., Professor of Dermatology, Medical Department of the University of the City of New York, Surgeon to the Charity Hospital, &c. New York: Wm. Wood and Co. 1881. London: Sampson Low and Co.

IN this work Dr. Piffard, who is well known in America as a writer on diseases of the skin with somewhat peculiar views, has made a catalogue of all those drugs which have been described as having a direct or indirect effect upon the skin, and of their observed effects. For the purpose of his digest, which was made originally for his own personal requirements, he has searched widely in dermatological and general medical literature, and subjected himself to much labour, but we confess we are somewhat at a loss to understand for what class of readers the book is intended. Dr. Piffard has of course given prominent expression to his own views of treatment, but beyond that we do not think the work sufficiently exhaustive to be of great value as a book of reference to the specialist, and the general practitioner can find the indications for the treatment of diseases of the skin much more conveniently and completely given in many of the excellent existing handbooks. Without doubt, however, references to the writings of others will be of service.

The book is divided into two parts, and the first part, consisting of 117 pages, is devoted to a description of those drugs, arranged in alphabetical order, which exert an influence on the skin, and of the ways in which they act; the second part, consisting of 200 pages, is taken up with indications when and how to use such drugs, but for this latter purpose Dr. Piffard has written quite a treatise on skin diseases, and prefaced the treatment of each individual disease with its definition, description, diagnosis, etiology, and to some extent its pathology. The description of the ways in which drugs act are grouped under four headings—viz., A, "effects on the healthy skin that follow the ingestion of the drug"; B, "effects produced on the healthy skin by the local application of the drug"; C, "the cutaneous affections in which the drug has been found curative or useful when administered internally"; D, "the cutaneous affections in which the drug has been proven useful when locally applied." Dr. Piffard has made a catalogue of drugs old and new, including both those which have from various causes fallen into disuse, and many indigenous American drugs which are little known in this country. He by no means confines himself to the drugs favoured by so-called "allopaths," but gives us also those in use by other schools, and indeed for many remedies recommended by homœopathists he has a strong predilection, such as for viola tricolor, iris versicolor, hydrastis canadensis, rhus toxicodendron, and as a further instance we may mention that a favourite remedy with him for early syphilis is the hydrargyrum oxidum nigrum Hahnemanni in a state of trituration, in doses of from $\frac{1}{4}$ to $\frac{1}{12}$ grain. And this leads us to say that Dr. Piffard strongly advocates this special mode of administration for many drugs, which has been adopted in our Pharmacopœia in the case of hydrargyrum cum cretâ,

such as for arsenious acid, black sulphuret of antimony, calomel, cyanide of mercury, corrosive sublimate, &c., on the contention that minute subdivision facilitates absorption. We cannot help regarding with some suspicion also in this connexion the marked manner in which he goes out of his way to mention the adoption of aconite and belladonna by Liston and sulphide of calcium by Ringer from the homœopathists. Extended as the list is, we may point out as examples of the incompleteness of the catalogue the absence of any mention of the usefulness of benzoic acid in urticaria beyond an incidental reference to a lotion in another part of the work; whilst of boracic acid he says nothing of its healing and soothing action in the form of an ointment. Under delphinium he simply gives a reference to its powers of destroying pediculi, and says nothing about its virtues lying in the oil extracted from the seeds. The account of arsenic is unsatisfactory, and we were much disappointed in finding simply a *résumé* of Hunt's rules for its administration, and of a paper of Dr. Farquharson, where we expected to find a thorough analysis of all that is known of the action of this important drug. And we would remark here that the physiological action of drugs is not fully set forth in this book, and that the latter would have been of much greater service if Dr. Piffard could have seen his way to add to our information as to a more elegant and effective combination of remedies for external application. Thus, under camphor, beyond the statement that it is useful in pruritus (and about this affection we can find no details in the book) combined with chloral, we find no account of its valuable solvent action. Amongst remedies newly suggested or little known in this country, we notice bromide of arsenic for pustular acne (two drops night and morning in an alcoholic solution of one grain in the ounce), and for dusting powders, photographers' graphite, and the officinal phosphate of calcium. Of the value of that old remedy, the *wild and uncultivated viola tricolor*, in acute and chronic eczema, especially in children of a lymphatic habit, Dr. Piffard speaks enthusiastically after twelve years' experience, for he states that, if employed in a proper manner and in suitable cases, its influence is as marked as that of cinchona in malaria or mercury in syphilis; and he is further satisfied by abundant personal evidence that rhus toxicodendron will cut short an acute case of eczema if given at the very beginning, and that "the 100th of a drop of a good tincture, or even a less amount, is not too small a dose to commence with." In treatment generally Dr. Piffard is a keen opponent of Hebra and his disciples, in so far as they hold that skin diseases with few exceptions are purely local; but he guards himself by pointing out to what an opposite extreme the French school has gone. At the end of the work is a formulary, with some new suggestions.

Recueil des Travaux Chimiques du Dr. Domingos Freire, suivi des Recherches sur la Cause, la Nature, et le Traitement de la Fièvre Jaune, par le même Auteur. Rio de Janeiro: Imprimerie de Molarinho et Mont', Alverne.

THE writer of this volume is Professor of Organic Chemistry at the Medical Faculty of Rio de Janeiro, and a Physician to the Hospital of N.D. de la Santé of that city. In his latter capacity he has had the opportunity of observing a large number of cases of yellow fever, and the results of these observations, as recorded by him, are of a very remarkable and interesting character. In the vomit (black, brown, and coffee coloured) of patients suffering from yellow fever, Dr. Freire discovered a great number of bacteria and of round cellular organisms, to which he gives the name of "Cryptococcus xanthogenicus." Studying the life history of the cryptococcus, he found that it presented two distinct phases. In the first it grew from the condition of a small granule, without perceptible structure, into a large cell with a distinct nucleus; this process took from four to five days, and was followed by a stationary period of from a few hours to three or four days. In the second phase conjugation of cells took place, with reproduction of fresh cryptococci, accompanied by the formation of a large quantity of pigment. At the same time bacteria throve and multiplied in the fluids experimented on. Next, comparing the history of the development of the cryptococcus as observed in the vomit, in blood, milk, &c., with the clinical history of yellow fever, Dr. Freire points out that the first stage of the disease, including the period of invasion, lasts from three to four days, which is just the time necessary for the cryptococcus to arrive at the adult state. Further, he has found in the blood of patients during this stage corpuscles with vibriones attached, "adhering to them like leeches," besides others in various stages of deformity or degradation. At the end of this period the blood is profoundly altered, the breaking up of the cryptococci lets loose a large quantity of yellow pigment, which colours the skin, and the fluidity of the blood favours pulmonary and mucous hæmorrhage. The temperature and pulse become normal, or nearly so, and an interval of apparent calm, accompanied by much depression, comes on. This second stage of the disease, like the stationary period in the history of the germ, lasts for two or three days. It is then followed by the third phase of the fever, in which all the symptoms become exacerbated: profuse and uncontrollable hæmorrhages, a weak thready pulse, delirium, and a general ataxic condition with this stage, which is generally fatal. Microscopic examination of the blood of patients in the third period shows, according to Dr. Freire, that "it can hardly be said to be blood which is circulating in the vessels; it is an unformed mass of cryptococcus, bacteria, vibriones, and detritus of all sorts."

Assuming the connexion between the fever and the organisms found in the blood and feeding on it, Dr. Freire fixed upon salicylate of soda, an antiseptic fatal to the growth of germs outside the body, as an agent likely to be useful in treating yellow fever. Viewing the rapid march of the disease he determined to administer the salt hypodermically, and did so with the most successful results. It is impossible to reproduce here the carefully prepared tables given by Dr. Friere, but out of a total of eighty-eight cases treated during the first period (in the first two days of the disease) eighty-three recovered, giving a mortality of about 7 per cent., while of the total number of cases treated the mortality was correspondingly low. The quantity of salt used varied, but injections of from three to eight grains were found effectual, and in some cases from sixteen to twenty grains were used without any inconvenience.

Naturally Dr. Friere writes with some enthusiasm of the results of his researches, which have however only extended through one epidemic; but if future experience should confirm these results there can be no question as to the great value of his addition to curative and pathological medicine. The book is carefully and clearly written, and the work is evidently that of a trained experimenter and observer. Accompanying the text are given plates representing the different organisms described, and their stages of development. We have passed over the first and larger part of the volume, which consists of a detailed account of various chemical researches and speculations, representing a year's laboratory work. These include careful studies of many of the alkaloids, of the processes of fermentation and rancification occurring in oils, &c., and an account of a series of experiments made by Dr. Freire to decide the part played by different gases in the urine. In the last-named paper it is shown that carbonic acid gas and nitrogen naturally present in urine are tolerably active in retarding fermentative changes in that fluid, while the presence of oxygen on the

other hand gives a powerful impulse to the process of decomposition.

In his preface the author says that he intends to publish annually, under the form of archives, the complete results of his researches for the year. We trust he may do so, and that his succeeding works may be as valuable as the present, and as honourable to himself and the faculty which he represents.

A Guide to the Examinations at the Royal College of Surgeons of England for the Diplomas of Member and Fellow. By FREDERICK JAS. GANT, F.R.C.S. Fourth Edition. London: Baillière, Tindall, and Cox. 1881.

THIS edition is brought up to date, the latest examination papers are printed, and the several alterations in the regulations are noted; and those who find such information as is contained here of service will be grateful to the author for this revised edition. We are reminded, however, by its appearance that the truly successful guides to these examinations are the dissecting-room, physiological laboratory, and the wards and post-mortem room of a hospital.

New Inventions.

McKESSON & ROBBINS' CAPSULE PILLS.

WHEN we compare the small and silvered pill or the pleasant Pharmacopœial lozenge of this period with the bolus of thirty years since, we have a distinct sense of progress. But there is still a large field for invention in this department. We have before us a case of capsule pills—the work of Messrs. McKesson and Robbins, manufacturing chemists of New York, which show that our druggists will have in their brethren of the United States no mean competitors. These preparations are so full of taste and neatness as to give the medicines an inviting appearance instead of a repelling one. The case can be carried in the pocket or in the carriage, and a dose of any much-needed medicine administered without delay. The pills are of various sizes, some a little too large; but all are smooth and bead-like, and can be easily received by either the mouth or the œsophagus. The preparations are well worthy of trial. Those before us include capsule pills of sulphate of quinine, 1 gr. or 2 gr.; sulphide of calcium, ½ gr.; podophyllin, ¼ gr.; pepsin, 1 gr.; pil. colocynth. co. (B.P.), 5 gr.; muriate of morphia, ⅛ gr.; ergotine, 3 gr.; &c. The agents of Messrs. McKesson and Robbins in London and for Europe are Messrs. Burroughs, Wellcome, and Co., Snow-hill.

A VACCINATION POCKET-CASE.

THE time is opportune for noticing a neat little case by Messrs. Salt and Son, of Birmingham, with compartments for holding tubes of lymph from any given child, and a corresponding ivory space outside it, on which the name and date can be written. The case contains also an instrument for vaccinating. In the instance before us the instrument is slightly too long for the case, and has been injured in the point. This should be made an impossibility. The case, too, it seems to us, might be constructed of lighter material. With these qualifications, it is one of the most useful little articles which a practitioner can have.

A NEW POCKET OBSTETRIC CASE.

MESSRS. ARNOLD & SONS have arranged a pocket obstetric case for Dr. Murphy of Sunderland. It is made of leather in steel frames, like an ordinary cigar case. It contains a hypodermic syringe, bottles for ether, ergot, ergotine, and morphia, together with a pair of scissors and a pocket for ligatures, &c. The case is a very convenient one, and an improvement upon the one ordinarily used.

CLINICAL TEACHING AT ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

To the Editor of THE LANCET.

SIR,—There is a statement contained in the letter of "A Cambridge Undergraduate" in your issue of May 14th which requires some explanation. He states "that the majority of Cambridge students know no more of practical medicine and surgery after four years' attendance on the practice of Addenbrooke's Hospital, than an average London student knows after the first six months of his attendance in the wards of his hospital." Now, anyone of experience in such matters will agree with me in saying that the knowledge of medicine and surgery of the average student after his first six months in the ward is not very deep. He has, perhaps, learnt to diagnose a fracture or a simple tumour, is familiar with the ordinary surgical appliances and their practical use. Of the treatment of surgical cases he probably knows but little, while his knowledge of medicine is certain to be quite as limited. Now, "A Cambridge Undergraduate" asks us to believe that a large number of students after four years' attendance at a hospital of no inconsiderable size, abounding with cases of great interest, both medical and surgical, acquire no more knowledge than this.

As a matter of fact few Cambridge students of medicine occupy four years in attending the practice of their hospital; the majority, I think, spend about two, after which they proceed to the larger London hospitals, where they obtain a more extensive field for observation and study. It must also be borne in mind that during these two years they are placed in much the same position as the first and second year's students in London hospitals, their mind and reading being mainly occupied in preliminary scientific work, while they attend the practice of the hospital in accordance with the regulations of the examining bodies. Any student, however, who feels an interest in his work, and attends the medical and surgical wards of a general hospital, cannot fail, even in two years, to acquire a good deal of general knowledge, if he have not the advantage of systematic teaching.

At Addenbrooke's Hospital not only is there ample opportunity for observation, but also a regular amount of clinical teaching well suited to the knowledge of medicine and surgery which the students possess, delivered by men well able to perform the task they take in hand, in some instances by those whose names, as household words in the annals of the profession, are more than sufficient guarantee for the excellence and thoroughness of their clinical instruction. As a practical fact the students who come from Cambridge to the London hospitals are generally quite as advanced in their professional work as London students at the same period of their career. This is evidenced by the large number of Cambridge students who are at once advanced to the posts of dressers and clinical clerks on their arrival at the London hospitals, and who afterwards obtain the more valuable house appointments at those institutions. It is, of course, quite obvious that no amount of opportunities for observation, no clinical teaching, however excellent, can make a student possess a knowledge of medicine or surgery when he neither knows how to observe facts or to argue from them. An hour's lounge round the wards of a hospital three days a week will by itself no more teach a man surgery than the same time spent in a picture gallery would teach him to become an artist. I hope to have shown that want of practical professional knowledge is not a fault of the majority of Cambridge students when they go up to the London hospitals. The minority, with whom "An Undergraduate" seems more personally interested than myself, must not blame the clinical teaching of an excellent provincial hospital for what is really the result of their own idleness and neglect of opportunity.

I am, Sir, yours, &c.,

May 22rd, 1881. MEDICUS.

COLLEGIATE LECTURES.—Professor Gerald Yeo, F.R.C.S., will commence his course of three lectures, "On the Contractile Tissues," in the theatre of the Royal College of Surgeons, on Monday, June 6th. Professor Jonathan Hutchinson, F.R.C.S., will commence his course of six lectures, "On the Laws of Inheritance in Relation to Disease," on Monday, June 13th.

THE LANCET.

LONDON: SATURDAY, MAY 28, 1881.

THE artificial attenuation of the virulence of the morbid agents which give rise to acute diseases is a problem of profound practical importance, opened up by the pathological investigations which have recently been undertaken in France. These researches, to which we have from time to time called the attention of our readers, and which have added new lustre to the somewhat faded reputation of French medical science, are due to the personal labours and inspiring example of M. PASTEUR. The special subject of the artificial weakening of the virulence of these poisons is the subject of an article by him and MM. CHAMBERLAND and ROUX in a recent number of the *Gazette Médicale de Paris*. The facts, very ably discussed by them, are of such importance as to deserve detailed description. Recent experiments have shown that the attenuation of a morbid virus is possible. Consisting as it does of a special organism of extreme minuteness, it is susceptible of artificial culture, by which, even though all external contamination is precluded, more or less considerable modifications in virulence take place, apparently under the influence of the oxygen of the air. The inference from these experiments is that the rational means of prophylaxis against these acute diseases is to endeavour to prepare from an active virus a vaccine virus of restrained development, capable of preventing the fatal effects of the former. Hence the great object of their researches has been to ascertain as fully as possible the conditions under which the oxygen of the air can exercise this effect.

The virus of anthrax, which has been so carefully studied, was the first object of investigation. The experiments on chicken-cholera are well known. But between the virus of the two diseases there exists a difference which prevents the vigorous application of the results obtained with one to the other. The organism of the chicken cholera does not appear to be resolvable, by culture, into definite germs. Only cellular elements, multiplying by fissure, are discoverable, and the conditions under which true germs are formed are unknown. Ordinary yeast is a striking example of such cell forms, multiplying indefinitely without any appearance of their spores of origin. The mycelia of many fungi in certain conditions give rise to the collections of cells called conidia, which, detached from their sources, seem to reproduce the organism under the forms of cells without any spore structures being discoverable. They are comparable to the plants which are reproduced by buds, and the seeds of which are not commonly employed for their multiplication. The bacteria of anthrax, however, behave differently in artificial cultivation. The filamentous mycelia have hardly continued to grow for twenty-four or forty-eight hours when they are found to be transformed (especially those in the freest contact with the air) into refracting ovoid corpuscles, which gradually become isolated, and constitute veritable germs of the minute organism. Observation shows that the vitality of these germs, so quickly formed under cultivation, is not rendered less by the influence of the atmosphere, nor are they rendered less virulent. M. PASTEUR possesses a tube of the bacteria of anthrax, preserved since March 21st, 1877. Each year he has tested the germinal power of the minute corpuscles, and each time germination took place with the same facility and the same rapidity as at first. Each year the virulence of the new cultures was tested, and it was found on every occasion to be undiminished. This fact seems opposed to the theory that the oxygen of the air can lessen the activity of the virus of anthrax, but M. PASTEUR suggests that the solution of the difficulty is to be found in the very rapid multiplication of the germs of the bacteria. Is not the organism in its filamentous form and its fissiparous multiplication the same as that of chicken cholera? It is readily intelligible that a germ should undergo no modification under the influence of the oxygen of the air, and that any change in vitality, of which bacteria are susceptible under this influence, they undergo while in the stage of mycelium. A bud left on the ground in contact with the air would soon lose all its vitality, while a seed under the same conditions would preserve all its power of reproducing a plant. Hence for the oxygen of the air to produce its effect it is essential that the organism should be exposed to it in the state of mycelium under conditions in which germs shall not be formed. How can this condition be secured? By several artifices the appearance of spores in the artificial cultures of the bacteria of anthrax can be prevented. By keeping the temperature at the lowest point at which the cultivation will go on—that is, about 16° Centigrade—the bacteria do not form germs, at least for a very long time. The organisms at this temperature assume irregular shapes, but do not form spores. The same is true when the culture is made at as high a temperature as is compatible with the process, the exact degree varying according to the medium. In neutral decoction of fowl the culture does not go on above 45° Centigrade. It takes place freely at 42° or 43°, but without the formation of spores. Cultivated at this temperature, with free contact of pure air, there is an abundant production of mycelium, but no spores are formed, and after a month of such culture the organism seems to be dead. Sown in fresh decoction of fowl, it appears to be completely sterile. The vitality of the organism is lost suddenly. The day before it is found to be completely sterile it is capable of reproducing itself with the greatest facility. The facts as to its condition of virulence are equally remarkable. After eight days of such culture at 42° or 43°, the virulence is lost, at least the inoculation is ineffective in the case of the guinea-pig, rabbit, and sheep, three animals which contract anthrax with the greatest readiness. It thus seems that by simple culture we are in possession of the means not only of weakening the virulence of the poison, but even of completely arresting it.

What happens during the first eight days of culture thus to remove all the disease-producing power of the organism? It may be remembered that the organism of chicken-cholera also perishes in successive culture under exposure to the oxygen of the air. The time is, it is true, long, but in the intervals a progressive attenuation of virulence is manifest. This fact suggests that in the case of the bacteria

of anthrax a similar diminution of virulence occurs before it becomes extinct, and such is found on experiment to be the case. Before the extinction of its virulence, a progressive attenuation may be demonstrated, just as in the case of the organism of chicken-cholera. Moreover, it has been found that one attack of anthrax confers immunity against subsequent attacks, and each example of the weakened virus seems to confer the same immunity. By the inoculation of the cultivated organism, M. PASTEUR has succeeded on a large scale in conferring immunity upon sheep, and has thus verified in a different and most important manner the results obtained by M. TOUSSAINT.

There is another problem of great importance connected with this subject, and that is the possible return of virulence in the organisms rendered feeble by successive cultivation. The bacteria of anthrax is rendered inoffensive for the guinea-pig, the rabbit, and the sheep. Can it regain its activity? It is found that the cultivated virus is not equally inoffensive to guinea-pigs at different ages. That which may be inoculated without the least risk in a guinea-pig more than six days old, will kill with certainty one that is only a day old. If, from a newly born guinea-pig, another is inoculated, and from this a third, and so on, the virulence of the bacteria is progressively reinforced, and soon it is found to be capable of killing a guinea-pig three or four days old, then one a week old, until animals several months and even years old succumb; and, lastly, it is capable of causing the death of sheep. The organism has reacquired its original virulence, and it preserves this renewed virulence indefinitely unless means are taken again artificially to attenuate it. Similarly, the organism of chicken-cholera, when it has lost its virulence for fowls, will still kill small birds, such as canaries, and by successive inoculation of these the original virulence may be restored, so that it has the same action as at first upon adult fowls.

These facts with regard to the return of the morbid influence are of extreme interest as regards the etiology of contagious diseases. M. PASTEUR suggests that the attenuation of the contagium under the influence of the air may be one of the factors in the cessation of epidemics. The facts just related may perhaps explain the apparently spontaneous recurrence of such diseases, the virus undergoing intensification under certain conditions. He instances the outbreak of plague in Benghazi in 1856–8, the commencement of which could not be traced to contagion. In the habitat of plague the attenuated virus may always exist, ready to resume its active form when the conditions of climate, famine, &c., recur. So, too, with camp typhus and other diseases which appear spontaneously in all countries. The germs of the organisms which cause these diseases are no doubt widely spread, and are innocuous unless their virulence is augmented by special conditions of development. Organisms may be inoffensive to man, or to this or that animal; but it is quite possible that, in some of the thousands and thousands of species of animal beings, the same organism may produce disease. Their virulence, reinforced by passing successively through many individuals of this species, may become capable of affecting other animals, and even man. Thus a new virus and a new contagium may arise. It is possible that such has been the origin of many contagious diseases, as small-pox, syphilis, plague, yellow fever, and we may add especially of diphtheria.

The facts observed when inoculation of small-pox was practised introduced into science an opinion the opposite to this—namely, the possible diminution of the virulence by the passage of the poison through certain subjects. Ther is nothing inconsistent in the two views, and the latter, which was held by JENNER, is not improbable. Hitherto, however, no other examples of this have been met with, although carefully sought for.

FEW natural laws are more widely known or more generally abused than that expressed in the aphorism, "every part of the animal body grows by exercise." The brain is part of the body—*ergo*, it grows by exercise, and, by a facile fallacy of inference, the more it is exercised the more it will grow. Whereas, although it is of course true that the organ of the mind forms no exception to the law of "development by use," it is only in a very limited sense the fact that brain-work promotes brain-growth, and it is of the utmost importance that the precise conditions under which it so acts should be generally understood.

The brain does not grow in bulk or weight after a comparatively early age. Before the period of physical growth is completed mental-straining would be like racing a two-year-old colt, and almost inevitably issue in a break-down; and subsequently to that period there can be no question of increase in the quantity of brain-cells or molecules; the limits of development as to mass, though perhaps not as to weight, are then finally determined. The only physiological opportunity for development which remains after the age of childhood relates to the development of special qualities, capacities, or properties in the cerebral elements. Any rough application of the principle that growth is stimulated or in any way promoted by exercise, must therefore be inadmissible in brain-culture during youth. Growth is not the end to be attained in this stage. The object to be gained is the internal arrangement of brain-molecules, under the reflex influence of special processes of activity. The means to this end is training as distinguished from mere exercise. This is an important discrimination. It is not work for mere work's sake that is wanted to cultivate the brain of a youth, but a skilful eliciting of cerebral function by education tending to formulate the energy of brain-tissue by leading or constraining it to useful lines of action. Brain-tissue is, so to say, a more costly part of the organism than any other; it is less easily repaired than other tissues, and needless waste by consumption in purposeless use is to be deprecated. Brain-work is only of use so far as it *trains*; it cannot promote growth, for the simple reason that growth after the earlier years of life is physiologically impossible. The measure of brain-growth is practically fixed by hereditary force, and this force operates more powerfully in regard to brain-tissue than to any other element of the body, so that mischief is peculiarly likely to result from abuse of the known laws of "development" in respect to this particular organ.

It follows from these general considerations that those who have the care of youth, and persons in authority who by their official regulations determine the nature and course

of the educational process to which the young are subjected, should so limit the exercises they impose or enjoin, as to minimise the expenditure of energy; while securing that, when put forth, it shall be so controlled as to *lead out* the faculties of the mind in healthy and useful directions. A well-developed brain implies a well-ordered mind; without order the intellectual powers can never be strong in action, and are always likely to break down, or prove self-destructive. The method of education which seems to find increasing favour with the preceptors of youth, and which is distinctly encouraged by the mischievous system of competitive examinations now ruthlessly forced on the population by enthusiastic but short-sighted legislators, is most disastrous; it disregards the main purpose of mental culture—namely, training—and treats the brain as it would treat a muscle, seeking to force its growth by exercise. The popular notion would appear to be that any fairly intelligent youth must benefit by *work*; whereas every exercise he performs involves an expenditure of cerebral tissue which cannot be replaced. Muscle may be replaced because it is, so to say, all of a piece. It is not permanently stamped with the impress of any act which it has performed. The cells or molecules of brain-tissue are permanently impressed by the use made of them. Every fact "committed to the memory" is impressed on some molecule, or set of molecules, and these afterwards form the physical basis of the record retained. Doubtless there is a wondrous power of adaptation in the brain, which enables it to perform the most complex acts of mental function, and the impressable particles of a healthy cerebrum are abundantly sufficient for a long life of intellectual activity; but the supply is not unlimited, and by excessive or disorderly "work" in youth, the mental capacity may be so squandered that when adolescence or full manhood is reached there will be no power to make new acquisitions of knowledge, and barely any opportunity for improvement in regard to the stock of information possessed.

Before the age of seven nothing ought to be attempted in the shape of "teaching" except what may be taught indirectly by example, or, almost unconsciously, in the ordinary communication of impressions. The sole aim of the educator should be to develop by habit the faculties of observation, and mind-storing, with the closely connected power of recalling mental impressions at will, which we call "memory." The simplest processes of inductive reasoning may be developed *practically*, by suggesting lines of thought to the child-mind, but there should be no teaching, properly so called. Subsequent to this stage—*i.e.*, the stage of brain-growth—economy of mental energy is not less important than the guidance of such force as may be liberated, or exercised, on lines calculated to develop and train the faculties for useful work. There are exercises which are needful for what seem to be purely educational purposes—that is to say, for the effects they produce on the mind or brain, reflexly. For example, the dead languages, the higher mathematics, and perhaps logic, are chiefly valuable for the influence they exert in eliciting and training certain faculties or forms of thought. Such exercises are, in a practical sense, among the most important to the future integrity and efficiency of the brain which the educator can employ. The mere accumulation of what is called knowledge is not brain-training, but brain-burdening, and may easily be pushed to the extreme of brain-straining, with the result of a complete and ruinous break-down. This is especially likely to arise when, as often happens, there has been little or no wise training in early boyhood, and the mind or memory is severely taxed for examination purposes later in youth.

A multitude of cases might be instanced in which boys who have not been trained for intellectual exercises at the outset of life have been urged or lured to make a great effort, and have been mentally ruined in consequence. No care bestowed on the *manner* of work can suffice to compensate for an original lack of power, or obviate the effects of a disorderly constitution, of the intellectual apparatus and functions. It is no more possible to make an intellectual giant of a mental dwarf than it would be to develop a Hercules out of a mannikin. By the artifice of mind-forcing and "cramming," the *memory*—a low-class faculty often prominently developed in the case of idiots—may be made to retain for a time the necessary material for exhibition at some examination-table; but if the undeveloped mind is incited to *intellectual* action in the process, the result must be untoward. The untrained boys who survive the process of forcing and cramming, and retain their mental health, are for the most part those of somewhat obtuse and insensitive cerebral capacity, who take in their knowledge as beasts of burden carry a load—without either interest or worry. A sensitive boy, who has been untrained, will feel his inefficiency so acutely while his memory is being loaded with unappropriated information, that he will fret and worry until he falls ill, either before or after the requisite quantity of "learning" has been deposited in his memory. There can be no such thing as *real* brain-work without power, and such power implies mental training following upon healthy growth. It is in practice a grave error to suppose that any brain may be developed by mere exercise. The result of an attempt to develop it by this agency—especially in advanced youth—is more likely to ruin than to improve it.

AT the last meeting of the Royal Society, Dr. MACEWEN presented a paper on a case in which he had successfully transplanted bone. The patient was a child four years of age, who had lost two-thirds of the shaft of the humerus by necrosis fifteen months previously, and in whom no osseous repair had occurred. The limb was of course useless. Dr. MACEWEN proceeded first to make a groove in the soft tissues in the position of the bone, relying for this on his anatomical knowledge, and then placed in this groove small fragments of wedges of bone removed from other patients for curved tibiæ. The result has been that a good new bone has been formed, the new portion has united firmly to the upper epiphysis and lower part of the original shaft, and the bone is only half an inch shorter than its fellow. Proper care was taken throughout to have the parts perfectly aseptic. Great interest attaches to this case, which is the first of the kind recorded, and Dr. MACEWEN is entitled to warm praise for devising and carrying to such a successful issue the many details necessarily involved in its management. Happily Nature is usually so skilful in the repair of lost parts of bones, that it is not often the surgeon is called upon to make good the loss; but much as there is

to marvel at the way in which Nature thus generally plays her part, cases now and then occur in which she fails to supply the lacking portion. Many interesting problems arise in reviewing the facts of this case. The first is, What was the original condition of the limb? There was evidently a local inability to produce a new bone, and we may presume that in the primary inflammation the periosteum, or at least the deeper active portion of it around the sequestrum, had been destroyed, and the lymph poured out from the surrounding tissues lacked any "ossific stimulus." This the bone-grafts supplied. But how are we to explain the formation of new bone of the proper length and form? We cannot, of course, attribute this power to the transplanted tissue; it might have seemed probable if Dr. MACEWEN had used pieces of the opposite humerus, or even any humerus, for his purpose, but we find that pieces of tibia were successful. If not the transplanted bone, are we to say that the ends of the original bone exerted a moulding influence on the ossifying material, or was it the effect of the surrounding tissues? A question naturally arises whether transplantation of bone is essentially better than transplantation of periosteum alone. It is easy to see that when whole pieces of bone are used, the periosteum over them will be probably more active than when stripped off and used alone, as in stripping off it is liable to injury. It would also be exceedingly interesting to know what actually became of the transplanted bone. Did the medullary cells and soft parts live, and the fragments become actually incorporated with the new bone; or was lymph effused around and into the bone, which was then gradually softened down and absorbed, or cast away in secretion? The problem is the same as has been raised about organising blood-clot. A case published in our columns in 1878 by Dr. MACEWEN may be taken as throwing some light on the question; there, in a case of compound fracture of the leg, a fragment two inches and a half long was completely detached, except by a very few slender bridges of periosteum, but being replaced and carefully treated, it was seen after four weeks to become injected with blood, and granulations rose from its surface. Here the whole process was closely watched from day to day, and the large fragment was seen to become firmly incorporated again with the rest of the bone. Other cases, individually perhaps less conclusive, point to the same conclusion; we may refer to one contributed to our columns in 1877 by Mr. PORTEOUS. As so frequently happens in such cases, while Dr. MACEWEN has been carrying his case to a successful issue in Glasgow, a similar proceeding had been determined upon by Mr. C. MACNAMARA of the Westminster Hospital. On Wednesday last we saw him plant several small fragments of bone taken from an amputated metatarsus in a groove prepared in the leg of a little child from whom several months ago he had removed the greater part of the shaft of the tibia. This operation was determined upon and discussed before the class of students more than a month ago, before Dr. MACEWEN'S case was made public, but it was postponed until the patient had had a few weeks' change of air in the country. Mr. MACNAMARA remarked, in reference to it, that he had been greatly struck with what he had seen in the practice of Mr. THOMPSON, who has removed teeth and replaced them several hours later, and they have adhered firmly in a few days; this, with other facts, had encouraged him in his endeavour to make a new bone in the case in point.

THE Royal Commission on the Medical Acts has the power to sit with open doors or with closed ones. It has preferred the latter alternative, and refuses to admit even the Medical press, which has certainly some claim to be kept *au courant* with the proceedings of the Commission. We are not prepared to deny that this action of the Commission is in accord with the practice of Royal Commissions. We are not the more enamoured with their decision on this account. The inquiry is one of great interest to the public and to the medical profession, and the day has gone by for close inquiries. The Royal Commission is not compelled to exclude the press. That there are precedents for doing so is not a sufficient justification. The sooner mere precedent is disregarded in favour of considerations of reason and common sense the better for this mode of inquiry, which has no more claim to be conducted secretly than any other inquiry into public matters affecting nobody's personal character. We can only urge our respectful protest against this step on the part of the Commission, accompanied, as it is, by the withholding of all information to outsiders.

It will be very interesting to see how the Commission proceeds in respect of taking evidence. Much most important evidence has been given already before a Select Committee, which the Commission will have the power of regarding as evidence taken by itself. But it is impossible that evidence so taken can have the effect of oral and living testimony, and those witnesses who have been already examined will be at a considerable disadvantage as compared with those to be examined by the Commission; for we believe it is intended to examine some further witnesses. It is most unfortunate that the proceedings and plan of the Commission are to be kept secret. We can only acquiesce with as much grace as we can command, and not without some hope that the Commission even now, before commencing serious business, will reconsider its decision and admit the press—a step which may have some inconvenience, but has far more advantage eve n to the Commissioners themselves.

Annotations.

"Ne quid nimis."

THE DUKE OF ALBANY ON HOSPITALS.

THE speech which Prince Leopold delivered at the University College Festival on the 20th inst. showed, as do all his public utterances, how deeply and thoroughly his Royal Highness is accustomed to consider questions of genera interest. The claims which the hospital has upon the wealthy dwellers in Bloomsbury, Marylebone, and St. Pancras were clearly shown. During the past year 2789 in-patients were relieved, and over 22,000 out-patients paid some 65,000 visits. This means, as his Royal Highness put it, that about 400 different sick persons daily receive relief. Notwithstanding these figures, it was shown that the staff was sufficient for the accomplishment of the work, and thus the excuse for non-contribution, which is so often put forward, that the patients are necessarily "scamped," was not left as a refuge for those whose discretion is greater than their generosity. The touching allusions to the fact that

the Prince himself had in his lifetime learnt how to appreciate the medical art, and his grateful acknowledgment of the labours of Sir William Jenner which were personal to himself, are not likely to be forgotten by those members of the profession who were present, or who read the speech in the newspapers. The Duke of Connaught also, who had graciously volunteered to support his brother upon the occasion, made, in replying to the toast of "The Royal Family," a generous acknowledgment of the services rendered to them by more than one member of the staff of University College Hospital. The dinner was a great success, although we could have wished that the total of the subscriptions had reached a figure more worthy of the occasion.

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS, EDINBURGH.

THE last list of candidates to be balloted for, or petitioning for admission to the Fellowship, numbers fifteen. Six of these are licentiates of Edinburgh, and nine have surgical diplomas from other corporations. It is to be hoped that this branch of trade in the Scotch Corporations will receive attention, as Mr. Mundella promised it should, from the Royal Commission now beginning its work. Not the least unsatisfactory part of this system lies in the names by which the applications are backed, including some of the very highest in Scotland and England.

TIGHT-LACING.

LAST week a verdict was returned by a coroner's jury which is quite as applicable to not a few cases of premature death which do not happen to be made the subject of medico-legal inquiry. It is difficult to speak with moderation of the folly of tight-lacing in view of such facts as this, especially as no attention seems ever to be paid to the warnings repeated *ad nauseam* against irrational and unhealthy modes of dress. Physiology does not enter into the sphere of the "fashions," the follies of which are productive of more suffering and ill-health than people are willing to concede. In spite of satire on one side and admonition on the other, there seems to be but little diminution in the degree to which these vagaries are carried, as may be proved by anyone who walks abroad during the height of a London season. Why is it that in this matter of "tight-lacing" there should be such tenacity, for there is hardly any subject that has been so unmercifully and yet so necessarily criticised as this? There are only two possible reasons for its maintenance—the one that it is indispensable to the present form of female attire, and the other that it is believed to lend grace to the wearer. Neither of these contentions can seriously be maintained in the face of the known evils which follow the practice, but they are at present ideas so firmly rooted in the female mind that their dislodgment is not easily effected. Now and then, indeed, there seems to be an attempt to introduce a more rational style of dress, but such attempts are rarely successful, owing in great measure to the disposition to ridicule new departures which do not harmonise with the "mode." The medical profession has never ceased to express its opinion upon the evils of tight-lacing, being well aware of the derangements for which the practice is responsible. To be effectual, however, such remonstrances must be given not only to those who follow the practice, but to those who either tacitly or openly encourage it. We are treading, we know, on delicate ground, but it is time there should be plain speaking, even at the risk of giving offence, for it must be confessed—and it is no disparagement to the fair sex to admit it—that so long as men persist in regarding an unnatural deformity as a beautiful object, so long will many women do their utmost to become "beautiful," no matter how painful the ordeal to which they will have to submit. A well-known writer upon female dress not very long since admitted that it was the object of women so to dress as to render themselves attractive to the opposite sex, thereby following out a law which obtains throughout animal creation, and of which there is no denying the truth. But the same author spoke out boldly against the practice of tight-lacing, showing that in her opinion, at any rate, the practice was not essential for the purpose above stated. In all seriousness, it is a pitiful thing that in these days, when all our youth can obtain an insight into the principles of physiology, there should still prevail a practice so unphysiological as that of which we speak. It stands to reason that long-continued, firm compression of the lower ribs cannot be indulged in with impunity. The dorsal, thoracic, and abdominal muscles are rendered feeble from enforced inactivity, respiration is impeded, circulation is carried on under greater strain, and the viscera are displaced to a remarkable degree. In the case which forms the text of these remarks, not only was the liver deeply indented and displaced, but the stomach was constricted into two portions, and both of these effects have often been observed before. The affections attributed to tight-lacing are many and various—some perhaps without sufficient ground; but most certainly respiratory, circulatory, and digestive derangements, not to mention difficulties and dangers in parturition, are directly traceable to tight-lacing. Such derangements lead the way to other and graver changes; they may cause many ailments which render life a misery, or may eventually lead to the premature extinction of life—not perhaps directly, but by rendering the organism unable to cope with disease, however arising. Once more, then, we urge the female members of the community to abandon this fatal article of attire; its utilitarian purpose could no doubt be supplied by means at once more simple and less injurious; and its æsthetic function exists only in the imagination, being grounded on the false and perverted notion that the natural contour of the body is ungraceful, whilst the deformed, contracted "waist" is considered beautiful in proportion as its constriction is extreme.

EARTHWORMS AND ANTHRAX.

AN important report was presented to the Académie de Médecine, at its meeting on the 17th inst., by M. Villemin, in the name of a commission appointed to investigate the statements of M. Pasteur as to the presence of the germs of anthrax-bacteria in the soil, and their transportation by earthworms, statements which had been contradicted by M. Colin of Alfort. In the investigations of the commission they first inoculated five guinea-pigs with earth taken from the soil over a trench in which animals dead of anthrax had been buried twelve years previously. All the guinea-pigs died, the first four from septicæmia, the fifth from well-marked anthrax, and the latter presented numerous bacteria in the blood of the heart and the spleen, which organ was considerably enlarged. A second similar series of guinea-pigs were inoculated with earth from above a pit in which animals dead of the disease had been buried for three years. The first four of these also died of septicæmia, and the fifth of anthrax, with characteristic bacteria. A third series were inoculated with "virgin soil"—i.e., earth from a spot in which, "within living memory," no animal dead of anthrax had been buried. All of these continued well, presenting only at the point of the inoculation a small nodosity the size of a nut, and consisting of an abscess enclosed in a pyogenic membrane. The first two of these experiments with the suspected earth were repeated, six guinea-pigs in all being inoculated. Of

these all died, five of septicæmia, the sixth of anthrax. Two other guinea-pigs were inoculated with blood from the animals to which anthrax had been communicated in the first two series of experiments, and both died of the same disease. A drop of blood taken from the ear of one, and "sown" in some decoction of fowl, reproduced pure and abundant anthrax-bacteridia. Some worms were also taken from the earth over the pits in which the animals had been buried three and twelve years before, and their excrement (the worms being still alive) was diluted with a little distilled water, and with it three guinea-pigs were inoculated. Of these two died from septicæmia, and the third from anthrax. Other three guinea-pigs were inoculated with the excrement of worms taken from soil beneath which, during the Commune, human bodies had been interred. One of the guinea-pigs died from septicæmia, the other two continued well. Lastly, the excrement of worms collected over the trench in which the animals had been buried for twelve years, and treated by "cultivation," gave rise to a rapid production of bacteridia, which, inoculated into two guinea-pigs, caused the death of both by anthrax. The experiments and report thus give a triumphant corroboration to the assertions of M. Pasteur.

LICENSED LODGINGS AT CAMBRIDGE.

WE are pleased to find the question of providing suitable and wholesome accommodation for the increasing number of undergraduates at the University of Cambridge has become a subject of discussion in the columns of the Cambridge press. For some time past the lodging-house accommodation of the town has failed to keep pace with the natural growth of the University, and consequently houses never intended, and utterly unsuited, for the purpose, have been brought into requisition. There can be no doubt many of the smaller lodgings, especially in the outskirts of the town, are unwholesome, if not actually dangerous. The drainage at Cambridge, as is well-known, is extremely defective; indeed, its sewers have been described as "elongated cesspools," and therefore, unless effective measures are taken, sewer-gas finds a ready access to the houses. Have we any assurance that these measures are taken? The medical officer of the town has, we know, done much to secure a more efficient ventilation of the sewers of the town, and thereby has considerably lessened their dangerous tendency, but his powers stop short at the houses. Here, however, the University assumes the responsibility. No lodgings are to be let to undergraduates unless they receive a licence as to their sanitary character from their inspector—a clergyman! From what we have ourselves seen, and from reports we have received, we do not think this gentleman is very exigeant with regard to the sanitary arrangements. No doubt, under existing circumstances, it is impossible to be so; if he were, a considerable number of freshmen would have to stay down every October term till suitable rooms became vacant. As a fact, however, they do not; they are all lodged somewhere and somehow. How defective some of these smaller lodgings are will be shown by quoting some suggestions recently made in the *Cambridge Review* for their improvement. The walls, the writer says, should be of sufficient thickness to resist the attacks of all weathers. The waterclosets should be appointed on the most approved plan, well ventilated, and amply supplied with water. A receptacle for dust and ashes and other refuse should be placed as far as possible from the house, and emptied as frequently as possible. Every licensed lodging-house should be compelled to have a larder built accessible to plenty of air, for the preservation of the students' food. These are simple but necessary requirements, but we venture to say we could point out many licensed lodgings where none of them are fulfilled. The writer in the *Cambridge Review* proceeds to urge that all cesspools should be abolished, and that all wells and pumps on the premises should be closed. Certainly, and this ought to be attended to at once; it would be most reprehensible on the part of the University authorities if they afford an opportunity for this suggestion being made again, and we hope the instances where such conditions exist are not at present numerous. Knowing the vigilance exercised by the medical officer of health, and this comes under his department, we should think this cannot be. We are not sanguine, however, under the present system of University sanitary inspection, that any great improvement can be effected even in less important details. We therefore earnestly advise parents whose sons have to live in lodgings to see for themselves that these are both habitable and wholesome, and not trust too implicitly to the sanitary acumen of the reverend licenser.

TUBERCULOUS PERICARDITIS.

TUBERCULAR inflammation of the pericardium is a very rare lesion. Laennec only met with two instances of it, and Louis but one. Although cases have been from time to time recorded in medical literature, their total number is not large. Grey granulations in the pericardium have been met with in cases of general tuberculosis in children, unaccompanied by actual inflammation, but the condition of tuberculous pericarditis is most uncommon. An instance of the affection in a girl of nineteen has been lately recorded by Dr. Vaillard in the *Journal de Médecine de Bordeaux*. The patient died from tubercular meningitis, with extensive enlargement and caseation of the lymphatic glands. The parietal and visceral layers of the pericardium were connected by soft adhesions, and each was covered by false membrane; the visceral layer was studded with granulations and small nodules of caseous tubercle. At a distance from these nodules the microscopical examination showed the proper tissue of the membrane to be somewhat thickened and continuous with a new membrane on the surface, which was almost perfectly organised. Sections through the yellow tubercles showed, even in the thickness of the visceral layer, a small oblong caseous mass, permeated by the remains of tracts of fibrous tissue in process of destruction. No giant-cells were seen in it. Around this caseous centre was a layer of embryonal cells, most marked in the deep layer of the serous membrane. Over the nodule extended the false membrane already described. The subjacent muscular fibres of the heart were fattily degenerated.

From the comparison of a considerable number of cases of tuberculous pericarditis, Vaillard concludes that it is much less common to meet with effusion than with the dry form, the latter having been met with twenty-seven times out of thirty-seven cases; in only ten was there effusion, of a citrine yellow or sanguinolent aspect. In all the cases of dry pericarditis, with one exception, there was complete adhesion of the two layers of the pericardium. Hence it would seem that adhesion is the habitual termination of this variety. The surfaces are covered by false membranes, in which the tubercles are scattered, as well as in the serous membrane proper. Tubercular granulations may, however, develop in the proper connective tissue of the myocardium, and Fauvel has even traced them through the whole thickness of the wall of the heart up to the endocardium. In the less frequent cases in which there is effusion, this is usually abundant, and may vary from 700 to 1600 grammes (Proust), and even 2800 grammes (Richard). This large effusion is so characteristic of the variety that, given a case of chronic pericarditis, the tubercular nature of the inflammation may be suspected from this characteristic. The layers of the pericardium present changes similar to those met with in the dry form, but

the false membranes may undergo degeneration and ulceration, so that ulcers form similar in appearance to the specific ulcers of the intestine. The question has been discussed whether the formation of tubercles is primary and the inflammation secondary, or whether the opposite is the order of events. Cruveilhier, Empis, and Niemeyer have expressed doubts as to the occurrence of tubercles in uninflamed pericardium; and, according to them, the formation only occurs in the depth of the newly formed false membranes. The facts of the question have often been difficult to ascertain, in consequence of the close adhesion of the false membrane and serous layer, so that it is not always easy to say where one ends and the other begins. But many cases have been observed in which tubercles were seated in the thickness of the serous membrane without any trace of inflammation, as in a case in which, the patient having died from acute tuberculosis, miliary granulations were found on the parietal layer, and three similar nodules on the surface of the visceral layer. This renders it probable that, in some cases at least, the formation of tubercles is primary and the inflammation secondary. But it does not follow that this is the invariable order of events; a simple pericarditis may be the occasion of the growth of tubercles in the inflammatory products.

The dry adhesive form of pericarditis is often overlooked during life. Its course is latent, and pericarditis not being expected in the course of phthisis, it is often discovered only at the autopsy. Any dyspnœa which it causes is obscured in the greater dyspnœa due to the condition of the lungs, and when adhesions form friction disappears. The occurrence of effusion renders the symptoms more obtrusive, so that this form is usually recognised during life. If there are no lung symptoms it may be difficult even to suspect the nature of the pericarditis, but a correct diagnosis is, in these cases, of great importance, since the pericarditis is occasionally the first local manifestation of tuberculosis, as in cases which have been recorded by Virchow, Proust, and Richard.

HABITUAL DRUNKARDS.

THE Lord Mayor has placed his influence and the Mansion House at the disposal of those who try to work the Habitual Drunkards Act of 1879, which, as our readers know, is a permissive Act. It sanctions the detention of those drunkards who are willing to place themselves under the restraint of Retreats. The special object of the late public meeting at the Mansion House was to inaugurate on a popular basis and a self-supporting principle a model licensing home for the cure of habitual drunkards. Dr. Cameron divided habitual drunkards into three classes: first, those willing to go into Retreats, which, in America, he says, is the case with 90 per cent. of the habitual drunkards; those whom it is most desirable to put into such cases but who are unwilling to go, and, thirdly, criminal drunkards. It is thought that if a model home were established it might give rise to similar institutions in other parts of the country, and that it would, at any rate, constitute an experiment that would be valuable and interesting in view of the temporary character of the present Act, which is to expire at the end of ten years. We should be very much surprised to see it proved that English habitual drunkards were amenable to reason in the proportion of ninety per cent., as in America. Besides, as Dr. Cameron pointed out, the time, ten years, is far too short to induce persons to expend capital in such an adventure. We confess to having no respect for such legislation. It is in the highest degree discreditable, and we are not sure but that the best way of getting legislation worthy of the name, and proportionate to the gravity of the subject, is to ignore the Act of 1879 altogether.

GALLANT CONDUCT OF SURGEON E. A. H. ROE.

THE annals of the Army Medical Department teem with incidents illustrative of the valour, coolness, intrepidity, and self-sacrifice shown by the members of this branch of our profession under circumstances of emergency and danger—acts the more heroic because for the most part they were performed in cold blood, and not under the stimulus which animates those engaged in actual combat with the enemy. Among the many brave deeds we have recorded, the gallant conduct of Surgeon E. A. H. Roe at the battle of Maiwand deserves prominent mention, the more so since the military authorities, who ought to have brought this act of valour forward for public recognition, have, as is so often the case when medical officers are concerned, been silent on the subject. The facts are briefly as follows:—At the battle of Maiwand, just at the time the troops broke and the retreat began, and when shot and shell were falling into the field hospital tent, Surgeon Roe, who was attending a British soldier whose leg had been shattered by a shell, on looking up from his work found that he was alone with his charge, at the same time he saw the Afghans were in the midst of our men, and were masters of the field. With true heroism, he determined to save the wounded man if possible, and, lifting him in his arms, he carried him to the open. Some camels and baggage animals were close by, and for these Dr. Roe made, hoping to place the man on a spare camel. The Afghan cavalry were, however, too close, and were quickly in the midst of the animals, cutting down the drivers and looting the baggage. Dr. Roe dragged the soldier along, and by keeping in the thick of the press saved himself from the Afghans, who were too busy looting to follow in pursuit. Eventually they came upon the chaplain, whose name unfortunately is not given, and with his aid the wounded man was carried still further away from the enemy. The man died in their arms, and they were forced to leave his body in order to provide for their own safety. Dr. Roe subsequently had the good fortune to overtake the brigade, then in full retreat. Should not some official recognition of the gallant deed be made? It is but little encouragement for good men to enter the Army Medical Department when such services as those described above are allowed to pass not only without reward, but without official notice.

THE CASE OF ARTHUR WATSON.

ARTHUR WATSON, who was lately tried at the Liverpool Assizes before Mr. Justice Mathew, is a telegraph clerk, aged twenty-seven, and on April 29th, 1881, he killed his infant child aged thirteen months. Watson and his wife lived apart, in consequence, it is said, of his intemperate habits. On March 5th, and again on March 22nd, he besought his wife to return to him, but in vain. On April 29th, being the worse for liquor, he visited her again and renewed his entreaties, but with the same result. The child was in the room in its cradle, and, besides the wife, a Mr. and Mrs. Gee (the former a joiner by trade) were present. Watson took the child in his arms and nursed it, but it cried, and Mrs. Gee took it from him. Shortly afterwards he rose from his seat, took a chisel which was lying on the table, and with it he killed the child as it lay in the cradle. The prisoner made no effort to escape, and when arrested said, "I really don't know what I am doing." On searching him a letter addressed to his wife was found in his pocket, the wording of which implied that he was meditating suicide. The defence was that the prisoner was insane. Dr. Barron Smith stated that the prisoner was admitted to the Manchester Infirmary in 1876 for an injury to the left side of the skull. Dr. Winterbottom stated that about a fortnight before the occurrence he had attended Watson for right hemiplegia. It was admitted by all the

medical witnesses on both sides that the right pupil was larger than the left. Dr. Mann testified to the fact of the right hemiplegia as far back as May, 1879. Dr. Morgan gave similar evidence. The judge put the usual stock questions to the jury. Did the prisoner know the nature of the act he was committing? Did he know right from wrong? The jury returned a verdict of "Guilty" in twenty minutes, and Watson was condemned to death, but has since been respited. This case differs from many others of a similar kind in this: that there is not the slightest doubt that Watson has organic disease of the brain. That he doted on his child is certain, and that the act was unpremeditated there is also no doubt. There is, again, no question that after his accident in 1876 he became "an altered man." He fell off mentally and morally, became liable to attacks of excitement, and took to drink. There is further evidence that his grandmother and a maternal aunt were liable to fits. To every properly instructed and unprejudiced man there can be no doubt that Watson's act was the insane outcome of a diseased brain.

THE TREATMENT OF SPLENIC TUMOURS.

THE inutility of internal remedies in advanced cases of splenic leucocythæmia led Kussmaul to try whether the spleen could not be made to shrink up by numerous punctures in different directions. The results are detailed in an inaugural dissertation by his pupil, J. Jäger. A hollow needle, at first a millimetre and afterwards a millimetre and a half in diameter, was thrust into the spleen of a patient aged thirty-eight, suffering from splenic leucocythæmia. The depth of the punctures was eleven centimetres. The hope was entertained that the hæmorrhages into the substance of the spleen would lead to cicatricial contraction at the spot. The punctures caused the patient scarcely any suffering, but unfortunately the result on the spleen was also *nil*. There was a slight improvement in the course of some weeks, but this seemed attributable to the patient's rest. The spleen did not lessen in size, and the proportion of white to red corpuscles remained much as before the treatment—one white to seven or ten red. But an unexpected effect resulted from the deeper punctures—a considerable increase in the quantity of the urine, lasting for about a day, associated with strangury. The latter commenced an hour after the operation, and continued until the following morning. The specific gravity of the urine was lowered, but it was free from albumen and sugar. Senator has informed Kussmaul that he has also observed polyuria to follow puncture of the spleen. The explanation of the phenomenon is obscure. Kussmaul has also tried galvano-puncture of the spleen, but with no better results. After seven minutes' application the spleen was considerably swollen and painful, but subsequently again lessened in size. On the third application, four weeks after the first, the patient for the first time experienced severe pain in the sternum beneath the spot on which the positive pole had been placed; the patient attributed the pain to the electrode. So far, however, the treatment, if it did no good, did little harm. The same statement cannot be said of the next measure employed, which is unfortunately a contribution to toxicology rather than to therapeutics. A gramme of a 10 per cent. solution of recently prepared sclerotic acid was injected into the spleen. Ten minutes later there was a severe rigor; the legs became rigid and intensely painful, the abdomen retracted, the extremities cold, the face cyanotic, the veins of the neck swollen, the breathing quick and purely costal, and the pupils dilated. Consciousness was unimpaired. The tetanoid attack lasted forty minutes. The temperature rose to 104° F. Abundant sweating followed, with vomiting and watery diarrhœa. The patient died a few hours later. The post-mortem showed that, besides the enlargement of the spleen, the medulla of the bones was affected, but there was no disease of the glands. No trace could be found in the spleen of any effect of the punctures, and there were no adhesions of the organ to the abdominal wall. Death was apparently due to the rapid passage of the sclerotic acid into the blood, but Kussmaul is inclined to ascribe it rather to the rapid passage of the water containing the acid into the blood than to the acid itself! This was found by subsequent examination to be free from other toxic ingredients.

Mosler has tried the effect of injections of dilute carbolic acid and of Fowler's solution into a chronic splenic tumour. The result in Kussmaul's case led to careful precautions to avoid an untoward occurrence. Considerable benefit is said to have resulted from the treatment, although previous measures had been ineffectual.

THE PROPOSED UNHEALTHY AND UNSUITABLE SITE FOR ST. PETER'S HOSPITAL.

LAST week we called attention to the inexpediency of the proposal to erect a building to be used as a hospital for "stone" cases in the vicinage of Covent-garden. Since the publication of our remarks, founded on a rumour which reached us casually, we have been furnished with a copy of the prospectus, to which is appended a view of the projected edifice. It is inexplicable to us that the site chosen should have been selected. The noise and offensive emanations from the market render the locality singularly unsuitable for any institution which is to be used as a house of refuge for the sick. What makes the incongruity of the present proposal conspicuously great is the fact that "stone" cases involve operative processes of especial danger, exposing the patient to peculiar risks of blood-poisoning, and requiring a plentiful supply of fresh air with perfect quiet! Is it too late to reconsider the scheme? There must surely be more fitting sites to be procured elsewhere; and if it be a fact that the purchase of this ill-chosen plot of ground has been hastily concluded, it had better be sold than improperly utilised. We waive nothing of our antagonism to special hospitals in making this suggestion in the interests of humanity. It is a misfortune that hospitals for "stone" or for other special classes of maladies exist; but if they must be, in deference to personal whim or public caprice, the profession and the public have, at least, a right to require that they shall be so placed and so conducted as to secure for those who trust their lives to the keeping of their promoters a fair chance of cure. This will be denied the patients of St. Peter's Hospital if it is located among the pestilent emanations of the offal accumulated in the purlieus of Covent-garden, with the accompaniment of sleep-destroying noises by night and the depressing spectacle of a city burial-ground for the outlook of convalescents by day.

ALLEGED MANSLAUGHTER AT CARDIFF.

A LABOURER and his wife, named Beer, were tried a few days ago at the Swansea assizes for neglecting to provide proper food for their infant, supplying food of an improper character, and failing to get it proper medical treatment. It transpired that the child had been taken to Mr. Morgan Williams for vaccination, who recommended the postponement of the operation on account of the child's emaciation, and that medical treatment should be procured. He advised, in the meantime, Parrish's chemical food. The advice of Mr. Williams was neglected, and the child died about two months after. He refused to give a certificate, an inquest followed, and thereafter the charges upon which the prisoners were tried. The judge said that no doubt the food given—biscuits and bread—was improper, but the jury must be

satisfied that the mother had been guilty of neglect of so gross a kind that she should be made responsible for it. The prisoners were acquitted. The judge reflected, we think, much too severely on the medical man for not attending to the case at once without an order. If a parish medical officer were bound to attend every needy case he sees without an order he would indeed of all men be the least to be envied. Besides, the obtrusion of his services without an order would lead to their being despised by the poor and repudiated by the guardians. The child lived two months after Mr. Williams's advice, which was long enough to show what ample time there was for application in a formal way to the parish.

SUPERANNUATION OF MEDICAL OFFICERS.

IT is to be hoped that Mr. Dodson spoke more than merely formal words when he promised attention to the arguments of the Medical Officers' Association for making superannuation compulsory. Dr. Rogers's statement that of 122 suitable applications to boards of guardians for superannuation fifty were refused is very serious. The inadequacy of the mere recommendation of the Central Board in favour of particular applications was well shown in the cases of Mr. Terry and Dr. Downes, who had both served forty years in their respective unions and yet failed, though in one case a Local Government Inspector was sent down to urge the application. Those boards which give the worst salaries are the most unwilling to grant superannuation. This question really touches the efficiency of the whole Poor-law service; and, whether viewed in its bearing on the poor or on the medical officers, should be favourably considered by the Local Government Board. It is vain to expect that the best men can be got for the work, or that any man will give his best services to a duty for which he is so ill paid, and in which he may labour till he is incapable of work, or contract serious or fatal illness, and then be left helpless. Some of the best Poor-law medical officers injure their prospects in general practice by faithfully discharging Poor-law work which has never yet been rewarded in a proper way.

MECHANICAL STIMULATION OF THE BRAIN.

DR. BROWN-SÉQUARD recently announced to the Société de Biologie that he has found, in rare cases, a simple puncture or section of the "motor zone" of the brain of the dog, rabbit, or guinea-pig, gives rise to signs of pain, and this when the dura mater has been entirely removed from the region. The sensibility is that of the brain, not of the pia mater, for the surfaces of an incision into the brain substance were found to possess the same sensitiveness. He ascribes it to the congestion induced by the operation, and concludes from it that the congestion may render parts of the brain acutely sensitive, which normally are destitute of sensibility. It has been especially met with when the brain has been exposed for a little time. These observations agree with some made by Dr. Brown-Séquard thirty years ago, showing that the insensitive spinal cord becomes sensitive when it is inflamed. He believes that the movements observed by some experimenters on mechanical stimulation of this part of the brain are simply reflex, and are not due to the excitation of any motor elements.

THE Royal Commission on the Medical Acts held their first meetings on the 20th and 21st inst., at 2, Victoria-street, S.W. There were present on both occasions the Earl of Camperdown, chairman; the Bishop of Peterborough; the Right Hon. W. H. F. Cogan; the Master of the Rolls; the Right Hon. George Sclater-Booth, M.P.; Sir William Jenner; Mr. Simon, C.B.; Dr. McDonnell; Professor Turner; Mr. Bryce, M.P.; and Mr. John White, Secretary.

THE QUEEN has been pleased to order the following appointments to be made:—Deputy Surgeon-General of Hospitals and Fleets Daniel John Duigan, M.D., Deputy Surgeon-General John O'Nial, A.M.D., and Surgeon-Major Samuel Black Roe, M.B., A.M.D., to be Ordinary Members of the Military Division of the Third Class, or Companions of the Most Honourable Order of the Bath; John Forsyth, Esq., C.B., Inspector-General of Hospitals (Retired), Bengal Medical Service, to be a Knight Commander of the Star of India; William Macgregor, Esq., M.D., Chief Medical Officer and Receiver-General, Fiji, to be an Ordinary Member of the Third Class, or Companion of the Most Distinguished Order of St. Michael and St. George.

A CONFERENCE of delegates and collectors of the Hospital Saturday Fund, together with friends and supporters of the Metropolitan Provident Medical Association, met this week at the Holborn Town Hall, to deliberate on a scheme for the promotion of the provident principle in hospital relief, and for the better treatment of the industrial classes in sickness. It was explained that by the plan proposed 1s. per month would be charged for membership, the patient paying for medicine.

THE death is announced of Dr. Barnard Davis, in his eightieth year, at Hanley, where he lived all his life. Dr. Davis was joint author with Thurnam of "Crania Britannica," and was, perhaps, the largest private collector of skulls in Europe. His museum recently passed into the possession of the Royal College of Surgeons. He held the degrees of M.D., F.R.S., and F.S.A., and was a member of numerous foreign scientific societies.

MR. GLADSTONE has been made a Fellow of the Royal Society, and this, too, in a somewhat royal style. He was elected and received, not as an ordinary Fellow, but in such a way as is open to the Society in the case of Royal or distinguished persons. No political bias will prevent a feeling of satisfaction at this action on the part of the Royal Society.

IT appears that there is a dearth of medical men in Shetland. Outside of Lerwick there are but six practitioners to a population of more than 37,000. An appeal has been issued for funds to assist in the establishment of dispensaries in various parts of the island, and to pay medical men for periodical attendance at these institutions.

A LIST of seventy-two names of Irish union hospital physicians has been sent us in support of the memorial to the Senate of the Royal University, praying for the recognition of one year's clinical attendance at such hospitals. Many more signatures are expected.

DR. C. B. MOSSE, C.B., Superintending Medical Officer of Jamaica, has been appointed an Official Member of the Legislative Council of that island.

DR. PEACOCK has resigned his position as Physician to the National Provident Institution, Gracechurch-street.

AT a meeting at Woolwich on Wednesday, in connexion with the movement for instructing soldiers' wives in nursing, Lord Chelmsford, Sir Frederick Roberts, and others testified to the usefulness of the scheme. Certificates of competency were presented by Viscountess Strangford to the successful candidates.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Birmingham.—Dr. Alfred Hill reports for this borough in 1880 an estimated population of 394,738, and a death-rate of 20·5 per 1000 inhabitants. This death-rate is much lower than the average of the previous decade (24·04), and lower by more than one per 1000 than in any previous year which the medical officer's records embrace, and 3·86 lower than the average death-rate of the previous fifteen years. Dr. Hill attributes this satisfactory reduction of the death-rate of 1880 to the non-occurrence of any serious epidemic of small-pox, scarlet fever, measles, or whooping-cough; the absence of marked distress, on the one hand, or a too flourishing state of trade leading to intemperance or excess, on the other; the cheapness of the necessaries of life; the mild weather at the end of the year; and the sanitary measures taken by the Corporation. The infantile mortality during the year was greater than had occurred in any year since 1875. In that year the mortality was equal to the rate of 19·6 per cent. of the births registered; in 1880 it was 17·8, and was due to an epidemic of diarrhœa, which prevailed with great severity during August and September. "The death-rate of infants," says Dr. Hill, "is always high in Birmingham, and indicates either gross neglect or lamentable ignorance, probably both; but the main cause of the increased fatality in 1880 was the great prevalence of diarrhœa in the summer quarter." It is of interest to note that while the death-rate from diarrhœa was very high in Birmingham during the year, the general death-rate was the lowest on record. On the relation of atmospheric temperature to the prevalence of diarrhœa, Dr. Hill observes: "Whenever the temperature exceeds 59°, the infantile diarrhœa invariably becomes prevalent. This temperature was maintained every week uninterruptedly from the second week in July until the third week in September, or over nine weeks out of the quarter. No doubt high temperature is the general and principal cause of the appearance of the disease, but as neighbouring towns having similar temperatures are affected differently, there must be some other contributory causes or conditions in operation. High temperature, in addition to acting directly on the system, has the effect of setting up putrefaction in food and other organic matters, thus leading to the ingestion and inhalation of hurtful solids, liquids, and gases. Hence with cleanly and pure surroundings ill effects may be avoided, which, under opposite circumstances, would be experienced in great severity. Whether heat be the sole or principal cause of summer diarrhœa, which is especially a disease of infancy and childhood, or not, it is certainly inseparably connected with the cause, as the disease is almost limited to the hot period in every year. The disease is further observed to be more common in towns than in the country, and in large than in small towns. Communities which are characterised by a high birth-rate naturally exhibit a high infantile diarrhœa death-rate owing to the abundance of subjects of attack." Dr. Hill, commenting on the remarkable diminution of the mortality from the continued fevers in the borough, unhesitatingly attributes the decline to the sanitary work done by the Corporation in the form of better drainage, ventilation, privy accommodation, and improved water-supply. But there is obviously much sanitary work still to be done before Birmingham is placed in a health condition such as it appears possible to compass. The privy nuisance is still serious in the borough, the house-drainage is largely imperfect, houses built upon refuse containing much organic matter are numerous and necessarily unhealthy, and animal keeping in and about houses is a serious source of unhealthiness in some localities. It is gratifying to learn, however, both in the interests of the school children and the borough at large, that the School Board and its officers are giving most willing assistance to the sanitary authority in the promotion of their work. Birmingham must look largely to the more developed notions of the rising generation in sanitary matters for the completion of much of the hygienic work it is now engaged upon. The summary of nuisances dealt with in the course of 1880, and which is given by Dr. Hill towards the close of his report, presents an instructive insight into the sanitary requirements of the borough and the difficulties the local authority and its officers have to contend with.

Watford, Urban (Herts).—Dr. Alfred T. Brett reports for 1880, among a population estimated at 10,400, a birth-rate of 31·05 per 1000 inhabitants, and a death-rate of 20·9. He reminds the sanitary authority that the district needs to obtain more land for sewage-irrigation purposes; more ventilators to the public sewers; baths at the public library; to improve the recreation ground; to prevent the pollution of the river Colne; to have better gas-lamps in the market-place; to adopt the constant water-supply system; and to build a home (hospital) for the treatment of infectious cases.

Ulverston, Urban (Lancashire).—Dr. A. Thompson reports for this district in 1880, among a population estimated at 11,000, a birth-rate of 35·09 per 1000 inhabitants, and a death-rate of 16·55, as compared with 19·27 for 1879. The average death-rate for the district during the five years 1880 was 20·65, and for the five years preceding 1864, 26·15. Dr. Thompson notes that the deaths among infants only included one from diarrhœa, a remarkable exemption from the fatal form of this disease, considering its great prevalence in the kingdom, in the summer quarter.

Taunton, Urban and Rural (Somerset).—Dr. Henry J. Alford's report for this combined sanitary district in 1880 is, perhaps, of chiefest interest from the information it gives of the great value to sanitary authorities of the possession of a well-appointed infectious disease hospital in checking the spread of infectious disease when properly used. *Taunton, Urban*, with an estimated population of 16,227, had a birth-rate of 31·0 per 1000 inhabitants and a death-rate of 19·0. Improvements both in the water-supply and sewerage seem to have constituted the more marked sanitary work in the year, investigations in search of a better water-supply having been crowned with success, and the sewerage of the town considerably extended. Still Dr. Alford confesses to having failed in convincing the sanitary authority as to the necessity of efficient ventilation and flushing as parts of a system of sewerage—a curious but not uncommon instance of perversity among local authorities, who will not hesitate to spend large sums in the construction of sewers, but will hesitate to lay out the money requisite to give them their full efficiency, and will economise pennies at the risk of frustrating the results of the expenditure of pounds. Taunton would appear to have instituted a regular system of scavenging, and as a consequence nuisance arising from gigantic ash-pits is gradually disappearing. The infectious disease hospital, lately erected by the combined urban and rural authorities, seems to have been an unqualified good to the district, both as concerns the patients treated in it and the opportunity it has afforded of checking the spread of infectious disease by isolation. But Dr. Alford longs for the compulsory notification of infectious diseases, without which he finds that he cannot use the hospital so fully and usefully as he wishes. *Taunton, Rural.*—Dr. Alford reports a birth-rate of 31·4 per 1000 population, and a death-rate of 14·0. The total mortality was forty-one below the average of the seven preceding years, and this is attributed not merely to the improved sanitary condition of the district, "but to a great extent to the existence of the sanitary hospital, by which many severe and dangerous outbreaks of infectious diseases were stopped."

Barnsley, Urban (Yorkshire).—Dr. Michael Thos. Sadler reports for this district in 1880, among a population estimated at 29,230, a death-rate of 23·57 per 1000 persons living. The chief features in the health-history of the year were the large increase in the mortality from zymotic diseases, and particularly the great number of deaths from diarrhœa, especially among infants and young children. Dr. Sadler's observations on fatal epidemic diarrhœa deserve careful consideration. "It seems," he says, "as far as one can judge from the experience of the last twelve years in Barnsley, that hot weather in the early part of the summer, say in June, does not produce an epidemic, but if it goes on into July and August, then we have diarrhœa, and if it is prolonged into September then the epidemic is a severe one. Now, last year we had nine hot days in June and five in July which produced little or no effect, then came twelve in August and seven in September, and a violent epidemic spread all through the town, whilst the hot weather in 1872 came especially in June and July. This almost invariable prevalence of epidemic diarrhœa at the time of the year when the simpler forms of animal and vegetable life are at their greatest activity, as shown by the multiplication of insects, animalculæ, fungi, moulds, &c., its aggravation by those conditions of

warmth &c. which are favourable to these lower forms of life, and its discouragement by those that check them, strengthen the belief that epidemic diarrhœa, like many other diseases, has for its cause the admission into the human frame of minute organisms which have the power of rapidly multiplying when placed in favourable conditions; and there cannot be much doubt but that these seeds are to a large extent found in the secretions thrown off during the attack. Water contaminated with these matters has been again and again shown to be one of the most potent agents in spreading epidemics of diarrhœa, and the allied but still more serious disease Asiatic cholera: but it is obvious that the infection must be conveyed by some other means in places where the water-supply, as at Barnsley, is derived from a reservoir placed beyond the reach of such contaminations, nor can there be any doubt but that the air is as capable of conveying the germs of diarrhœa as those of small-pox or scarlet fever. It is a matter of common experience that if one person in a house becomes affected with autumnal diarrhœa many others under the same roof will also take it, and that sometimes so quickly that suspicions of poisoning arise, and there probably may be a special liability to infection of this kind in a town like ours, where waterclosets are the exception and not the rule, and where the excreta are kept stored up often for weeks together in conditions more or less favourable to their diffusion through the air. As a matter of fact, the great majority of the deaths from the epidemic of last autumn were in those parts of the town where the houses are most crowded together, and where more than one family have to make use of the same convenience." Dr. Sadler then proceeds to urge the necessity of strict cleanliness being maintained at the time the annual visitation may be expected, and that it is incumbent upon the sanitary department at this time to prevent large accumulations of filth in the vicinity of houses, and to be more free in their use of disinfectants to ashpits and drains. Barnsley would still seem to retain the open, foul midden-privy which is the source of so much unhealthiness among the communities where it is still found.

Tottenham, Urban (Middlesex).—Dr. Watson's report for 1880 shows a death-rate of 16·5 per 1000 persons living among a population estimated at 43,968. The death-rate of 1879 was 17·6, and of 1878 17·3. The rapid increase of houses in this district is indicated by the fact that the sanitary authority approved of plans for no less than 3000 new houses during the year. Assuming that this approval is not merely a form, new Tottenham ought to furnish a different and far more satisfactory health-history than old Tottenham. Here, as in many places elsewhere in the kingdom, the prevalence of fatal diarrhœa during the summer was the most notable pathological event of the year. The beginning of the epidemic seems to have set in at a somewhat later period than it did in London. Dr. Watson remarks on this disease, as observed in Tottenham, "In the first place, with scarcely any exception, we must remark that the deaths were all amongst the lower classes, whose dwellings as a rule are damp and unhealthy, and whose habits are dirty and thriftless. Add to this the most deplorable ignorance of the proper manner of feeding children and in nursing them when ill, and we can account for the greater number of cases; but why these deaths occurred when they did, and under the rather peculiar atmospheric conditions then prevailing, I cannot attempt to say." The sanitary authority, we learn, have *at length* decided upon a plan of effectually ventilating and flushing the sewers of the district. The complaint of inefficient ventilation is of old standing against the Local Board, and we are glad to learn that it is about to be removed, for it is not without good reason that the want of ventilation of the sewers is said to have had much to do with the prevalence of diarrhœa, enteric fever, and diphtheria which have from time to time disturbed the minds of residents of Tottenham and of outsiders also.

Whitby, Urban (Yorkshire).—Mr. Tayleroon reports for the March quarter of the present year, among a population estimated at 14,000, a birth-rate of 32 per 1000 persons living, and a death-rate of 20. Generally the district was remarkably free from fevers and infectious diseases throughout the quarter.

THE SMALL-POX AND ITS LESSONS.

This subject was discussed at the last meeting for the season of the Islington Medical Society on Tuesday last. The chairman, Dr. Glover, remarked on the fact that the most preventable of all diseases was creating such extensive scare and mortality, and on the discreditable appearance of all sanitary and public authorities. It was agreed that there never had been such a demand for vaccination, and that this operation was likely to come into proper reputation only through public experience of the consequences of neglecting it. Mr. Dukes noticed the fact that Germans are vaccinated in eight or ten places, and that they show great resistance to either revaccination or small-pox. Mr. Blackman, public vaccinator in the East-end of London, attributed the greater dimensions of small-pox epidemics to the practice of vaccinating in fewer places than used to be the practice. One member thought that there was too much carelessness in the practice of revaccination, the operation being of no value unless followed by its proper phenomena of irritation, vesiculation, &c. It is undoubtedly true that if it is attempted to vaccinate a large number of persons with a small amount of lymph a large proportion of them will show no result, and yet are apt to be left under false impressions of security from the simple fact of the operation having been done. It cannot be too strongly impressed on the public that they are saved from small-pox, not by being revaccinated, but by being successfully and thoroughly revaccinated.

TILLING THE GROUND FOR FUTURE SMALL-POX.

At a recent meeting, the Lambeth guardians declined to act upon a suggestion of Dr. Stevens, of the Local Government Board, to institute a house-to-house visitation for the discovery of unvaccinated person or persons who had not been revaccinated. The result of such visitation, as carried out in other parts of the metropolis, has been, we understand, most excellent; but the guardians of Lambeth have such tender regard for the feelings of their parishioners that they decline to follow the course recommended lest it should alarm them. This is another illustration of the evil arising from the want of uniformity of action among the boards of guardians in the metropolis, largely frustrating the beneficent operations of the Vaccination Acts. Lambeth, by refusing to carry out to the fullest extent practicable the administration of these Acts, simply stores up in her midst material for the persistency of small-pox, and, in fact, cultivates the ground for further extension of the disease.

At the recent meeting of the Metropolitan Asylums Board, a member, speaking of the difficulties they had to contend with in dealing with the epidemic of small-pox, said, "Every day we read of persons recovering from small-pox being seen in the streets, public houses, and elsewhere, but the Local Government Board seemed unmoved. Why did it not rise to the occasion? But that is precisely the question that the Local Government Board is asking of the Asylums Board, while the metropolis generally is called upon to admire this new version of the old game, 'It's you, Sir,' 'No, it's you, Sir.'"

The Commissioners of the Sewers of the City of London have passed a resolution supporting the Metropolitan Asylums Board in their appeal to the Local Government Board for an amendment of the legislation with regard to that Board, and in view of the removal of the difficulties they have been recently exposed to in carrying out their functions. But here, again, we learn from a statement of Mr. Dodson in the House of Commons that the Central Board is waiting for suggestions from the Asylums Board as to what matters it would like to be amended!

The Camberwell guardians have under consideration a very proper motion for giving pecuniary compensation to one of their relieving officers, small-pox having been introduced into his family, contracted in the pursuit of the duties attaching to the office. It was mentioned in the course of the discussion that in 1877 a relieving officer had had £25 allowed under similar circumstances.

At the meeting of the District Board of Works on the 17th inst., the medical officer of health (Dr. Vinen) was enabled to state that the district was at that time entirely free from small-pox.

The scattering of cases of small-pox from the metropolis has been, we understand, much more marked during the past three weeks. The importation into Warrington and other distant towns is now recorded.

The question of the vestry of Rotherhithe undertaking its own "dusting" has, we are glad to say, been raised.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality showed but a slight further increase last week upon recent low rates. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 4998 births and 3036 deaths were registered last week. The births were 188 and the deaths 221 below the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had been equal to 19·5 and 20·3 in the two preceding weeks, further rose last week to 20·8. The lowest rates in the twenty towns last week were 13·3 in Hull, 14·8 in Brighton, 16·3 in Leeds, and 17·2 both in Portsmouth and Plymouth. The rates in the other towns ranged upwards to 23·8 in Wolverhampton, 24·9 in Manchester, 25·5 in Liverpool, and 25·7 in Oldham. During the first seven weeks of the current quarter the death-rate in the twenty towns averaged 21·2 per 1000, against 23·8, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 410 and 396 in the two previous weeks, rose to 424 last week; these included 104 from small-pox, 94 from whooping-cough, 88 from measles, 57 from scarlet fever, 33 from fever (principally enteric), 28 from diarrhœa, and 20 from diphtheria. The annual death-rate from these principal zymotic diseases averaged 2·9 per 1000 in the twenty towns, and ranged from 0·0 and 0·5 in Norwich and Brighton, to 3·1 in Portsmouth, Bristol, and Oldham, and 3·3 in Liverpool. Measles showed the largest proportional fatality in Bristol and Sheffield, and scarlet fever in Wolverhampton, Sunderland, Oldham, and Bradford. The 20 deaths referred to diphtheria in the twenty towns included 9 in London, 7 in Portsmouth, and 2 in Bristol. Small-pox caused 114 more deaths in London and its outer ring of suburban districts, and 1 in Salford, whereas no fatal case of this disease was recorded in any of the eighteen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 942, 1093, and 1225 at the end of the three preceding weeks, further rose to 1390 on Saturday last; of these 368 were convalescents temporarily accommodated in tents at Darenth. The new cases admitted to these hospitals during last week were 346, against 363 and 379 in the two previous weeks. The Highgate Small-pox Hospital contained 92 patients on Saturday last, and 20 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had steadily declined in the five preceding weeks from 395 to 254, were 256 last week, and were 16 below the corrected average number in the corresponding weeks of the last ten years; they included 140 from bronchitis and 86 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 3·6 per 1000 in London last week; while the rate from the same diseases was 5·8 in Liverpool and 4·1 in Salford.

The causes of 77, or 2·5 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·3 per cent. in London, whereas it averaged 3·7 in the nineteen provincial towns. No uncertified deaths were registered last week in Portsmouth or Plymouth; whereas the proportions of such deaths were largest in Norwich, Leeds, Hull, and Sunderland.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half of persons, the annual death-rate last week was equal to 19·9 per 1000, against 21·4 and 20·6 in the two preceding weeks; this rate was 0·9 below that which prevailed in the aggregate of the twenty large English towns. The rates in these eight Scotch towns ranged from 16·0 to 17·8 in Dundee and Aberdeen, to 24·4 and 27·8 in Paisley and Leith. It is noted in the Scotch weekly return that the rate in Paisley is probably over-stated by an under-estimate of its present population. The deaths referred to the principal zymotic diseases in the eight towns, which had been 64 and 82 in the two preceding weeks, declined to 61 last week; they included 16 from whooping-cough, 14 from diarrhœa, 10 from diphtheria, 8 from "fever," 8 from measles, 5 from scarlet fever, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 2·4 per 1000 in the eight towns, and was 0·5 below the average rate from the same diseases in the twenty large English towns. This zymotic rate in the eight Scotch towns ranged from 0·5 and 0·7 in Aberdeen and Dundee, to 3·9 and 5·2 in Perth and Leith. The 16 fatal cases of whooping-cough showed a decline of 8 from the number returned in the previous week, and included 11 in Glasgow and 3 in Edinburgh. The 14 deaths from diarrhœa also showed a decline from the number in the previous week, but were again proportionally more numerous than those referred to this disease in the English towns. Of the 10 deaths attributed to diphtheria 6 were returned in Glasgow, as were all the 8 fatal cases of measles. The 8 deaths referred to "fever" (including typhus, enteric, and simple continued) were 4 fewer than those in the previous week, and included 4 in Leith and 3 in Glasgow. The annual death-rate from this cause was equal to 0·31 per 1000, and again considerably exceeded the average fever death-rate in the twenty English towns. The 5 fatal cases of scarlet fever, of which 3 occurred in Edinburgh, were 7 less than the number in the previous week. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) in the eight towns, which had been 140 and 111 in the two preceding weeks, further declined to 96 last week, and were equal to an annual rate of 3·8 per 1000, while the rate from the same diseases in London did not exceed 3·2.

HEALTH OF DUBLIN.

The rate of mortality showed a considerable decline in Dublin last week. The annual death-rate in the city, which had been equal to 27·5 and 29·9 per 1000 in the two preceding weeks, declined to 25·2 last week; this rate was lower than that recorded in any previous week of the year. During the first seven weeks of the current quarter the death-rate in the city averaged, however, 29·4 per 1000, against 21·5 in London and 20·7 in Edinburgh. The 161 deaths in Dublin last week showed a decline of 30 from the number returned in the previous week, and included 14, or nearly 9 per cent., which were referred to the principal zymotic diseases, against 8 and 14 in the two previous weeks. The 14 deaths from zymotic diseases included 7 from fever (typhus, enteric, or simple), 5 from diarrhœa, 2 from whooping-cough, and not one either from small-pox, measles, scarlet fever, or diphtheria. The annual death-rate from these zymotic diseases was equal to 2·2 per 1000, while the rate from the same causes was 2·9 in London and 1·6 in Edinburgh. The deaths referred to fever in Dublin, which had been 14, 3, and 8 in the three preceding weeks, were 7 last week, and were equal to an annual rate nearly five times as high as the average rate from the same cause in the twenty large English towns. The 5 deaths attributed to diarrhœa showed a considerable increase upon the number returned in recent weeks; while the 2 deaths from whooping-cough were within one of the number in the previous week. The deaths both of infants and of elderly persons were fewer than in any recent week. Four deaths resulted from violence, but only two inquest cases were recorded during the week.

SICKNESS RETURNS IN SALFORD.

Dr. Tatham, the medical officer of health for Salford, has just presented to his local sanitary authority a quarterly return, which in one essential particular should serve as an example for periodical returns intended to supply a health bulletin of the population to which they relate. It appears that the Health Committee of the Town Council recently decided, at the suggestion of the Local Government Board, to procure for the information of the Health Department a weekly return of the cases of sickness treated by the Poor-law medical officers of the union. Dr. Tatham has been enabled, by the courtesy of the medical officers and the governing bodies of the various medical charities, also to obtain returns of the whole of the cases of sickness coming under the notice of the various hospitals and dispensaries of the district. Thus the sickness statistics which are published in the return before us include all the cases occurring in public practice within the borough, whether coming under the notice of the various hospitals or of the parochial authorities. The value of such a return cannot very well be over-estimated, and it may be hoped that what has been effected by the Town

Council and medical officer of health for Salford may encourage the sanitary authorities and the medical officers of health of other large towns to attempt the preparation and publication of similar returns, combining sickness and mortality statistics. Experience will best show how this combined information may be best turned to account, and to this end it will be interesting to note the varying relations of mortality to sickness in different seasons and in different parts of the borough. It may prove desirable to separate the cases of pauper sickness from those occurring in hospital practice. It must, moreover, not be lost sight of that the relation of mortality to pauper sickness will, to a great extent, be governed by the proportions of the population in different parts of the borough in receipt of poor-law relief. In order to facilitate a comparison of the weekly mortality and sickness returns we should be glad to see the deaths from all causes inserted in Table I. of the Return, just above the line for sickness from all causes. In calculating the rates of mortality for his return, Dr. Tatham has used the recently enumerated population number, which, being 18,000 less than the estimate used by the Registrar-General, gives a death-rate more than two per thousand in excess of the rate given in the last official quarterly return. We are glad to learn that Dr. Tatham calls attention to the excess of uncertified causes of death, and to the small percentage of inquests held in Salford, compared with the proportions prevailing in the neighbouring municipality of Manchester. The power of the coroner to obviate the dangerous neglect of human life indicated by a high percentage of uncertified deaths in town districts is beyond all question; and by neglecting to exercise this power coroners and county magistrates incur a grave responsibility.

AMERICAN DEATH-RATE.

We have frequently called attention to the general untrustworthiness of American mortality statistics, arising partly from incomplete registration of deaths, and partly from exaggerated estimates of population. We are glad to find that the full import of these defects is beginning to be recognised in the United States. In a recent number of the *Boston Medical and Surgical Journal* we note a leading article on the "computation of death-rate as illustrated by Baltimore," which should effectually call public attention to the way in which American vital statistics are discredited by what our transatlantic contemporary describes as "the outrageous inflations of estimated population for the purposes of local self-glorification." We not long ago noted the conspicuous case of St. Louis, which claimed a population of 500,000, and used this figure as the basis of its vital statistics, whereas the census enumerators could not count more than 350,522 inhabitants. Philadelphia, in a similar manner, claimed an excess of 53,000, Baltimore 60,000, and Cincinnati 24,000. Even since the census these towns insist that their inflated estimates are more trustworthy than the census numbers. In Baltimore, the wildest bases of estimate are urged in support of the assertion that the population of the city must be 400,000, instead of 332,190, as shown by the State census. The ingenious secretary of the Baltimore Board of Health urges in support of his estimate, and to disprove the census number, that the city has 80,000 registered legal voters, and five inhabitants to a legal voter being a fair and reasonable allowance, the population must be 400,000. Further, that as the census taken by the police for school board purposes gave 86,961 children aged between six and twenty-one years, assuming that this represents one-fifth of the population, it follows that the population must be 434,805. Again, we are told that Wood's City Directory gives, after deducting all firms, companies, and institutions, 84,596 white, and 13,853 coloured, names—and that it being perfectly fair and reasonable to assume four inhabitants to each—it follows that the population of the city must be 393,796. This latter estimate is the one which the Board of Health still persists in using as the basis of its vital statistics, instead of the census number. A rough calculation based upon the number of houses in the city, and upon the assumption that the 80,000 inhabited houses contain on an average five persons, gives by this method a total population of 400,000. There is something amusing in the persistence with which the Board of Health clings to its random estimate, based upon a supposed proportion of names in a directory, in preference to the census number. The secretary to the Board still asserts that the "census of Baltimore, if correctly taken, would give her a population of fully 400,000." It is quite evident that so long as each civic sanitary official is free to estimate the population of his city by such loose methods as those which have found favour in Baltimore the computation of death-rates must remain an utter farce, and only serve further to discredit American vital statistics. Between censuses some form of estimate is indispensable, but there is, at any rate, novelty in the persistent use of such estimates after the declaration of the census numbers, on the ground that these latter are not trustworthy. It is needless to point out that the addition of this 60,000 to the enumerated population of Baltimore entirely destroys the value of the calculated mortality statistics issued by the Health Department.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

DR. B. W. RICHARDSON, F.R.S., ON THE MANAGEMENT OF SMALL-POX IN THE METROPOLIS, ETC.

The discussion of Dr. Richardson's suggestions on the management of cases of small-pox and other infectious diseases in the metropolis and large towns, before the Sanitary Institute, was brought to a close on the 18th inst. Dr. Richardson, in reply to the various observations which had been made in the course of the discussion, remarked that all appeared to be agreed upon the propriety of obtaining a complete registration of communicable diseases, the mapping out of the special centres of infection in each parish, and the formation of a definite notion of the actual hospital accommodation the parish would require from time to time, also the desirability that every parish should bear its own burden. Opinion was less uniform upon the question of large or small hospitals for the reception of infectious diseases, but nothing had been said which called upon him to reconsider the opinion he had formed of the greater advantages to be derived from the use of small hospitals, and he reiterated his views on this subject. On his special plan for dealing with small-pox cases in hospital, he said:—"Objection is taken to my plan of dealing with these small-pox patients in a district who have no home. The plan is said not to be practical, but it exists in practice already. In private houses we send the small-pox sufferer to the top room of the house; we isolate there, and we treat, notwithstanding the existing faulty arrangements, with success. London at this moment is, in fact, a badly managed upper floor hospital, even now, to a considerable extent. I say carry that plan out on a better scale for the poor who suffer by making a sufficient number of small efficient upper floors. There are thirty-nine vestries concerned; for argument's sake, divide equally. Let each vestry, on its boundaries, set up four hospitals of light construction on the upper floors of existing or of new buildings. Let each hospital take in twelve patients. There then would be accommodation for 1872; and if by a mutual accommodation between parishes one would receive for another in emergency, the whole question of dealing with the out-of-home infectious cases in London would be solved. Such small hospitals would not even be noticed after a time, and their management would be so easy, that they could not be sources of danger if any efficiency deserving the name of efficiency were bestowed upon them." Dr. Richardson, in support of the practicability of his suggestions, illustrated his observations by exhibiting a model of a small iron hospital arranged for destroying organic emanations by fire. Dr. Richardson's comparison of the upper-floor hospital he would erect with the treatment of infectious diseases on the upper floors of private houses is, we fear, more figurative than practical. The purchase or erection of buildings as sites for hospitals has not, we think, received from him such consideration from an economic point of view as would have seemed advisable before its proposition as a practical measure was formulated. Moreover, we should like to have heard something more definite how the parochial principle of dealing with small-pox and other infectious diseases was to be brought about. There appear to us both legal and economic objections standing in the way of Dr. Richardson's proposals, for the avoidance of which we see no present means. Further, so far as metropolitan parishes are concerned, the parishioners of Fulham, Kensington, and Paddington, at least, repudiate as earnestly parochial hospitals as hospitals for combined parishes.

WOOLSORTERS' DISEASE.

The local papers continue to report cases of woolsorters' disease from Bradford and its vicinity, and that in spite of precautions being taken to render the wool innocuous. One of these, an alpaca sorter, forty-six years of age, died after a few days' illness, and bacilli were found in the blood during life. Two other alpaca sorters, seriously ill about the same time recovered; but in one of these the blood was found to contain bacilli. A second and third fatal case came from another factory, one being a carder of Cape mohair, who died after forty-one hours' illness, and the other a wool-washer of Van mohair, who was seventy-two years of age, and had enjoyed perfect health until the time of his fatal seizure, which was followed by death in about forty-seven hours. In neither of these latter cases, it will be seen, was the deceased a woolsorter, and in the one who had to do with Van mohair, it is said that the material before reaching his department had been washed at a temperature of 130°, dried, sorted, washed again, prepared and combed. The details of the cases at present to hand are not full enough to enable us to say with certainty that they were cases of anthrax; but the rapidity with which death followed, with all the symptoms of blood-poisoning, hardly leave room for doubt; and the discovery of the bacillus in the first case places that case undoubtedly in the category.

TYPHOID FEVER IN RUSSIA.

The mortality statistics for St. Petersburg, published from time to time in the Registrar-General's weekly returns, afford the strongest evidence of the insanitary condition of that city in the remarkable fatality of typhus and enteric fever which prevails. There is, moreover, every reason to believe that even this excessive death-rate from fever is exceeded in many of the other large Russian towns. Moscow, the ancient capital of Russia, from reports furnished by the United States Consul to the National Board of Health at Washington, appears, at any rate, to be suffering from a greater fever fatality than St. Petersburg. The population of Moscow is stated to be 601,969, among which 2214 deaths were recorded during January last; of these 265 were attributed to typhoid fever, 25 to small-pox, 26 to scarlet fever, and 90 to other contagious diseases. The deaths from typhoid fever were equal to an annual rate exceeding 5 per 1000 of the population; this exceeds by more than twenty times the average death-rate from the same cause in the twenty large English towns during the first quarter of this year. It is also important to note that no less than 215 deaths are also referred to diarrhœal diseases; as intense frost prevailed during the greater part of January, it is probable that a large proportion of this fatal diarrhœa was of typhoid origin. The annual death-rate from all causes during the month is reported to have been equal to 43·3 per 1000.

We learn that petechial typhus is prevalent in Kars and in the districts of Persia recently overrun by the Kurds. The report, moreover, is contradicted that the plague on the Lower Euphrates has extended to Divanieh; and news from Bagdad reports that the disease is now confined to Nedjef, and that it still prevails seriously there.

The lecture delivered before the Victoria Institution on the 16th inst. by Sir Joseph Fayrer, M.D., F.R.S., on "Rainfall and Climate in India," has been printed and issued as a pamphlet.

The water-supply of Aberdeen, especially of the northern parts of the city, having been found unsatisfactory, the city surveyor has formulated a scheme to remedy the defect, at a cost of some £11,000.

THE SERVICES.

WAR OFFICE.—The Secretary of State for War has appointed John Dunbar Baskerville, Esq., L.R.C.S. Irel., L.R.C.P. Edin., and L.A.C. Lond., to be Assistant Visiting Surgeon for Chatham, under the Contagious Diseases Acts, 1866 to 1869, vice J. B. Jardine, M.D., appointed Visiting Surgeon.

Surgeon-Majors A. F. Bradshaw, F. W. L. Hodder, and G. G. Gibson are on passage home from India in H.M.'s troopship *Jumna*.

Surgeon-Majors H. C. Guinness, M. Cogan, and Surgeon P. H. Johnstone are on duty with troops proceeding from Bombay to Portsmouth in H.M.'s troopship *Serapis*.

Surgeon-Major R. Tate and Surgeon J. A. M'Cracken have been granted leave of absence from India for six months, on private affairs.

Surgeon-Major C. Innes, A.M.D., has been granted leave of absence from Bengal for six months, on urgent private affairs.

PHARMACOLOGY AND THERAPEUTICS.

CANTHARIDINE.

AN interesting observation on the effect of cantharidine was recently published by M. Cornil. If this substance is given to a rabbit, either by the mouth, or through the skin, as by the application of a blister, the symptoms of poisoning are produced, cystitis, nephritis, and inflammatory lesions in the liver and the lung. Twenty minutes after the ingestion of the cantharidine, the following lesions were found in the glomeruli of the kidney. A large number of white corpuscles lay between the capsule and the tuft of blood-vessels composing the glomerulus. The uriniferous tubes were filled by a granular exudation obliterating their cavity. An hour after the dose there was an abundant proliferation of cells, round or angular from compression, the signs of a true catarrh of the tubules. In the bladder the changes were of the same character, but superficial, apparently in consequence of the irritation being due only to the character of the urine. In the lung, the minute bronchi were filled with pale corpuscles or pus-cells, and a similar change was found in all the bronchial tubes, and even in the mucous membrane of the trachea and larynx. Similar lesions were found when a blister had been for some time in contact with the skin.

ASPIDOSPERMINE.

The physiological and therapeutical action of aspidospermine, the alkaloid of quebracho bark, has been investigated by Penzoldt; it consists of white prismatic crystals readily soluble in alcohol and ether, but only slightly soluble in water. The solution has a yellowish colour and an intensely bitter taste. In frogs ten milligrammes caused complete motor paralysis similar to that caused by a cubic centimetre of solution of the bark. The heart's action was reduced in frequency, and the thoracic respiratory movements were at first shallower, and afterwards less frequent. Six centigrammes injected beneath the skin of a small rabbit caused, in eight minutes, distinct motor weakness and dyspnœa. In two others, fifteen minutes after the same dose, dyspnœa came on without obvious narcosis or diminution of sensibility, and death occurred with symptoms of muscular paralysis, accompanied by intermitting spasm. The respiratory curves showed first a slight increase in frequency, which afterwards became greater, with increased depth of inspiration. In dogs also considerable dyspnœa was produced, with increased frequency of pulse. Administering it in ten cases of dyspnœa in doses of from one to eight centigrammes in phthisis and emphysema, no marked effect on the dyspnœa was observed; nor could he trace, in febrile conditions, any distinct influence upon the temperature. On the other hand, a one per cent. solution delayed putrid decomposition of urine, but did not prevent the growth of bacteria and fungi. The effect on forms of dyspnœa was so much less than that of the quebracho bark, that Penzoldt believes this must contain, besides aspidospermine, another active substance. This more active principle has been lately separated by Hesse, who finds that the bark contains even larger quantities of it than of aspidospermine. He has termed it *quebrachine* and assigns to it the formula $C_{21}H_{28}N_2O_2$. It is a strong vegetable base, and in alcoholic solution blues litmus. The sulphate and hydrochlorate are crystalline.

KURCHICINE.

An Indian chemist, Babu Ram Chundra Dutta, has obtained an alkaloid from the bark of Holarrhena antidysenterica, to which he has given this name from a native word for the plant. The bark (Conessi bark) is a well-known Indian remedy for dysentery; and the alkaloid, according to the *Pharmaceutical Journal*, is the same as that which has

been twice discovered before—in 1858 by Haines and in 1865 by Stenhouse; each time, however, attracting little attention. There seems to be more probability now that it will be utilised in medicine. It is white, non-crystalline, and very bitter to the taste, readily soluble in alcohol, ether, and dilute acids, less soluble in chloroform and benzol. Crystalline acetate and tartrate have been obtained. The bark yields about three per cent. of the alkaloid, and it is present also in the seed. The dose is two to five grains, and it may be given as a powder, or dissolved in water by means of a little acetic acid. It has been found to be in no way inferior to the cinchona alkaloids as an antiperiodic, and not to produce nausea, vomiting, or headache.

THE INFLUENCE OF PHOSPHORUS ON METABOLISM.

Phosphorus in toxic doses, has been found by Fränkel and Röhmann to cause in fowls a great increase of metabolism. The phosphorus was given in bread pills, by the stomach, fasting, and the excrements were carefully collected and analysed. In each of three investigations a considerable increase in the amount of material excreted was found to occur. The amount of nitrogen was nearly trebled, and that of uric acid was doubled, and the uric acid was increased not only absolutely, but also in proportion to the other constituents. In this relative increase of uric acid the experimenters see an analogy to the formation of leucin and tyrosin in the mammalia. The phosphorus caused also an extreme diminution in the number of red corpuscles in the blood, which fell, in one case, to a sixth of the original number.

MORPHIA.

Landesberg, employing the method of Uslar and Erdmann for the discovery of morphia in the urine, could not find a trace of it in the urine of dogs which had been poisoned with the hydrochlorate or the sulphate of morphia. The brain, the medulla oblongata, the blood, and the liver were also analysed and found free from morphia, in the case of large dogs. Only in a small terrier was a trace of morphia found in the urine the day after the injection of twelve grains of morphia into the jugular vein. In the blood of the same animal, three hours after the injection, no morphia could be found. The conclusion which this investigator draws from his experiments is that when morphia is injected subcutaneously, it passes gradually into the blood current, and, by the alkalinity of the blood, it is quickly changed and decomposed, being secreted through the kidneys chiefly as decomposition products. These conclusions are, however, difficult to reconcile with the prolonged influence of morphia on the nervous system, unless this effect is really exerted by some of the decomposition-products.

A NEW SOURCE OF THYMOL.

Thymol is found to be contained in considerable quantities in the ajowan seeds (Ptychotis ajowan), which have long been used in India as a remedy for colic, atonic dyspepsia, and diarrhœa. It is suggested by Mr. Christy that should the demand for thymol increase, a supply might readily be obtained by the cultivation of this plant.

NEW ANTISEPTICS.

Styrone, or cinnyl alcohol, has been tried with success in America, and is said to have an antiseptic power greater even than thymol. It is obtained from the styracine of balsam of Peru, or liquid storax, by treating it with it an alkali which separates the cinnamic acid from the cinnyl alcohol. According to the *Pharmaceutical Journal* it is in the form of silky crystals, has a sweet taste, and an odour of hyacinths. It is soluble in twelve parts of water, in alcohol, and in ether. A saturated aqueous solution was found to be a perfect deodoriser of a foul ulcerated surface, and to cause no irritation. This explains, to a certain extent, the healing properties long attributed to tincture of benzoin, of which liquid storax is an ingredient.

Another antiseptic is the oil of eucalyptus. To it Mr. Lister has lately called attention. It is said to cause no irritation, even to very sensitive skins. Three parts of the oil may be dissolved in fifteen parts of alcohol, and then 150 parts of water added. Gauze wetted with the solution is to be covered with gutta-percha tissue and kept in place in the ordinary manner by gauze bandages.

The use of a combination of salicylic acid and camphor as a surgical dressing has been suggested by Dr. Lajoux, with the idea that the salicylic acid would act on the albumenoid ferments and the camphor on the organisms of wounds. The compound has been employed by Dr. Henral, it is said, with satisfactory results. It was far more efficacious than any other application in a case of ulcerated lupus in a syphilitic patient, the sores immediately assuming a more healthy aspect and soon healing. A phagedænic ulcer of the fourchette, which had lasted for six months, was healed in a fortnight.

PICRIC ACID.

Subcutaneous injections of carbolic acid have been extensively used in Germany for the local treatment of erysipelas. The affected region is enclosed by a series of injections of a one per cent. solution, and these are repeated daily, morning and evening, until the fever has subsided. They appear to produce no local irritation. M. Flaminio Tassi has lately recommended picric acid for the same purpose. He was led to employ it by the consideration that this acid, penetrating into the deeper layers of the skin, exercises an astringent action on the vessels, and also acts as an antiseptic. The astringent action may be expected to lessen the migration of leucocytes, which, as Wolmann and Steudner have shown, attends the erysipelatous dermatitis. In four cases in which he has employed this method of treatment the extension of the inflammation was effectually arrested, while the patients have complained of no inconvenience. In addition, compresses wetted with a saturated solution of this acid were applied over the inflamed area.

Chéron has pointed out that picric acid is a very powerful antiseptic. It has been employed at Saint Lazare for the disinfection of latrines, and it was found that the fæcal odour was readily removed by it. It also prevents the putrefaction of urine, and is said to be a useful application to wounds. The potash salt has been given as a febrifuge with good effect by Braconnot. Dr. Waiawright of New Jersey has treated malarial fevers with success by picrate of ammonium. He has given it as a pill in doses of a grain or a grain and a half, increasing it to two grains. Few cases, it is said, had to be treated longer than a week, and if given at the commencement of the disease, it was quickly cut short. It does not affect the ears as does quinine. The urine is rendered yellow, and the skin and conjunctiva are similarly stained, but the colour disappears at the end of a week.

RHINACANTHIN, A NEW REMEDY FOR RINGWORM.

Dr. Liborius having observed in China that the tincture of an unknown fibrous root was used successfully as a remedy for ringworm, obtained some of the plant, which turned out to be the Rhinacanthus communis, the plant of which the leaves, bruised and mixed with lime-juice, are used in India as an application for the same complaint. According to the *Pharm. Zeit. f. Russland* and the *Pharmaceutical Journal*, Dr. Liborius has since obtained from the root a quinone-like body, supposed to be the active constituent. It resembles chrysophanic acid in being antiseptic and antiparasitic. He proposes to call it rhinacanthin, and represents it by the formula $C_{11}H_{12}O_3$. It occurs only in intercellular spaces within the bark, which contain an intensely red substance, supposed to be a compound of rhinacanthin with an alkali. It forms with bases beautiful red compounds, easily decomposed by certain neutral solvents, such as petroleum spirit, which dissolve the rhinacanthin and assume a yellow colour.

OIL OF ANDA ACU.

This oil, obtained from the Anda Brasiliensis, has been recommended as an aperient in place of castor oil. A smaller dose is said to be required, and its action is free from intestinal irritation. The seed is ten times as large as that of the castor oil plant. It is necessary to remove the embryo and episperm before the oil is expressed, since these contain a principle which produces colic.

THE THERAPEUTIC ACTION OF OXYGEN.

M. G. Hayem has communicated to the Académie des Sciences a fresh series of researches on the influence of inhalations of oxygen. When forty to ninety litres a day are inhaled in two doses, mixed with an indefinite quantity of ordinary air, the functions of nutrition are energetically stimulated, the appetite is quickened, the temperature is slightly raised, the circulation accelerated, and the weight of the body is increased. The formation of hæmatoblasts and of red corpuscles is greatly increased, and the amount of hæmoglobin contained in the latter is augmented 5 or 10 per cent. These effects are, however, transient; when the inhalation is suspended the blood resumes its previous com

position. In chlorosis this influence is very useful. Appetite returns, vomiting ceases, and the weight of the body is increased, and the amount of urea excreted is also larger. The number of red corpuscles becomes greater, but their value is unchanged, and may even be lessened. At the end of two or three months, in spite of the improvement in the general state, the condition of the blood presents little alteration, and the beneficial results are soon lost when the treatment is discontinued. Nevertheless, the inhalations of oxygen are regarded as a useful adjunct to treatment. Vomiting, from whatever cause, is influenced in a remarkable manner, being usually suspended by one or two inhalations. This result has been obtained in dyspepsia, in pregnancy, and anæmia. In cancer of the stomach and in phthisis the vomiting was merely rendered less frequent.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons, on Friday, May 20th, Dr. Cameron gave notice that on that day four weeks he would call attention to the lack of capacity and resource shown by the Local Government Board in dealing with the small-pox epidemic at present raging in London and move a resolution.

Importation of Drugs into Japan.

Mr. Alderman Fowler asked the Under-Secretary for Foreign Affairs whether Her Majesty's Government had made any communication to the Government of Japan in regard to the introduction of drugs and chemicals into that country.—Sir C. Dilke said Her Majesty's Chargé d'Affaires in Japan was instructed in July last to take such steps as might be necessary for the protection of British importers of drugs in case there should be proper grounds for the intervention of Her Majesty's Government. No complaint had been received since that date. Two complaints had been received previously.

Compulsory Vaccination.

On Monday, Mr. H. Lee asked the Secretary of State for the Home Department if the Lord Chancellor, after submitting to the Town Council of the borough of Southampton the name of James Seward Pearce, the sheriff of the town and county of Southampton, now declined to add his name to the roll of borough magistrates; and whether the ground of objection was the opinion Mr. Pearce held in relation to compulsory vaccination, and the fact of his having been fined for non-compliance with an order under the Act; and whether the Government proposed to make this a disqualification in the case of all justices of the peace who held similar views.—Sir W. Harcourt said he had communicated with the Lord Chancellor on the subject, and he stated that the ground of his objection to that gentleman did not relate to any opinions entertained by Mr. Pearce, but to the fact that he had been twice convicted before the borough magistrates, the last time as recently as 1879, for offences against the Vaccination Act, and fined. The Lord Chancellor was not informed of those facts when he mentioned that Mr. Pearce had been recommended to him as a fit and proper person for a borough magistrate. They were afterwards brought to his notice by a memorial, and the Lord Chancellor felt obliged to concur in the opinion that a gentleman who had not recognised the duty of obeying the law which magistrates were bound to administer was not likely to be a good example to those brought before him, and was not himself, therefore, suitable to be appointed as a magistrate.

The Small-pox Epidemic.

Mr. Dodson, in reply to Mr. W. H. Smith, said he had received a representation from the managers of the Metropolitan Asylums District as to the alleged necessity for legislation to define and enlarge the powers of the managers and local authorities. Independently of, and prior to this, the subject had much engaged the attention of the Local Government Board, who were now in communication with the managers for the purpose of ascertaining the nature of the amendments of the law which appeared to them to be required. When the Board had received their reply they would be in a better position to determine what steps it might be expedient to take, but at present it would be premature to express an opinion.

Petitions were presented as follows:—From the King and Queen's College of Physicians in Ireland, for alteration of the Coroners (Ireland) Bill; from Charles Hatchell, for inquiry into the East India Medical Department; and from St. Giles's, Camberwell, against a loan to the Metropolitan Asylums District to carry on litigation in the Hampstead Hospital case. The Registrar General's annual report of births, marriages, and deaths in England (abstracts of 1879) was presented, as also was a return of deaths from small-pox in the metropolitan district from Jan. 1st to April 30th, 1881.

On Wednesday, petitions against the Rivers Conservancy and Floods Prevention Bills were presented from Leicester and other places, and for alteration of the Bill from the Liverpool Land and House Owners' Association. Mr. Dillwyn's Lunacy Law Amendment Bill was read a second time, after a debate in which Mr. Courtney, Dr. Cameron, Sir Henry Holland, Sir R. Cross, and Sir W. Harcourt took part.

Variolous Vaccination.

Mr. Hopwood gave notice on the following questions for Monday next:—To ask the President of the Local Government Board, whether it is the fact that the matron and one or more nurses at the hospital at Halifax have recently taken small-pox a few days after revaccination; whether there is any reason to believe the vaccination was of variolous matter; and, whether it is the fact that there is in use in the country a large quantity of vaccine which is in fact variolous matter, or small-pox communicated from the human subject to cattle, and from them extracted and used in inoculation under the Vaccination Acts.

Vaccine Lymph.

On Thursday, Mr P. A. Taylor asked the President of the Local Government Board whether his attention had been directed to the fact that an absolute diversity of opinion existed at this moment amongst our highest medical authorities in regard to certain lymph still used, Sir Thomas Watson declaring that the lymph which had been largely used at Brighton and elsewhere for the last forty years was variolous, and such as "must have spread about a vast amount of mitigated small-pox;" while Dr. Carpenter asserts that "no vaccinator could be charged with propagating small-pox, even though it were put beyond doubt that his vaccine lymph had been remotely derived from a small-pox pustule;" and whether he did not think it would be safer to discontinue the practice of vaccination altogether until at least our highest medical authorities could agree upon the not unimportant point as to whether the lymph employed was a protection against small-pox, or whether it might not be simply an agent for the diffusion of small-pox.—Mr. Dodson said he believed Sir T. Watson did use the words quoted in a letter to a medical journal on January 17th, 1880, but in a subsequent letter he said, referring to an important paper by Mr. Ceely, of which he had no previous knowledge, "A careful study of it convinced me that I was in error in respect to the statement with regard to small-pox and cow-pox, I am in duty bound to acknowledge this and to apologise for it." He (Mr. Dodson) could not admit that there was any substantial difference amongst the highest medical authorities on the point as to whether the lymph employed was a protection against small-pox, or whether it might not simply be an agent for its diffusion. As far as he was aware, the great bulk of the authorities were of opinion that to those employed in vaccination it was a protection against small-pox, and not a means of its diffusion. If all measures for preventing or curing diseases in regard to which some difference of opinion amongst doctors might be found were to be postponed until they all agreed, not only vaccination, but all medical treatment, would have to be suspended for probably an indefinite number of centuries.—Mr. Dawson asked if there was any provision in London in the case of an epidemic, such as was now raging, to supply vaccine from animals as was the case in foreign countries.—Mr. Dodson said that notice must be given of the question.

Contagious Diseases Acts.

Mr. Hopwood asked the Secretary of State for the Home Department whether it was the fact that one or more surgeons employed in the compulsory examination of prostitutes under the Contagious Diseases Acts had been made justices of the peace, in order that they might carry out the Acts in a twofold capacity, administering and executing the law; whether he would state by what Minister such gentlemen were recommended to her Majesty for appointment; whether he approved of such a confusion of duties; and

whether the individuals in question should not be called upon to make their choice once for all to act either as magistrates or surgeons.—Sir W. Harcourt said he had made inquiries and could not discover that any such appointment had been made.—Mr. Hopwood asked whether a Mr. Parsons had not been appointed and was now acting.—Sir W. Harcourt asked when and by whom that gentleman was appointed.—Mr. Hopwood said he was appointed by the ex-Lord Chancellor.

Contagious Disease in Dublin.

Mr. Cavendish Bentinck asked the Secretary of State for War whether the general commanding her Majesty's forces in Ireland had not recently forwarded a report showing the lamentable state of the garrison in Dublin in connexion with contagious disease, and whether he would have any objection to lay the report on the table of the House? Mr. Childers: "Yes, sir, there is such a report; and although I deprecate its appearing in print, I have no objection to lay it on the table."

The Case of Captain Chatterton.

In answer to a question by Mr. Grantham with reference to this case, the gist of which appeared in our "notes" last week, Lord Hartington said he only noticed the question in the paper this morning, and he must confess he had not had time to investigate fully the various matters it contained. He did not think the military department of India had had time to make their examination. The General Brigade and Divisional Orders to which the hon. gentleman referred had never been received in the India Office, for it was not the practice to send them home from India. He would, however, have the question further examined into with the view of seeing whether it contained anything which did require further reference and inquiry in India, but he could not hold out any hope to the hon. member, considering the number of times this case had been brought before different Secretaries of State, that it would be possible to take further action.

Correspondence.

"Audi alteram partem."

VACCINATION AND REVACCINATION.

To the Editor of THE LANCET.

SIR,—I think that in the present state of the vaccination discussion, the following facts may be of interest to your readers.

It was in the year 1836, or thereabouts, that my former master, Mr. J. B. Estlin, of Bristol (who had always taken a lively interest in the spread of vaccination, and was impressed with the inferior potency of the "vaccine" then in use), hearing of a fresh outbreak of cow-pox at Berkeley went down thither and brought with him supplies of fresh lymph from three sources. 1. The teats and udder of the cow. 2. The hand of one of the milkers infected from No. 1. 3. The arm of a child vaccinated from No. 2. Mr. Estlin and his friends (myself among the number) having got together a number of children, vaccinated them with each of these lymphs, and I very distinctly remember the following to have been the general results. I. Of those vaccinated direct from the cow only a small proportion "took" the vaccine. 2. Of those vaccinated from the milker a larger proportion "took." 3. Of those vaccinated from the child's arm nearly as many "took" as in an ordinary vaccination of the same number. Again, in those vaccinated either direct from the cow or from the milker the disease produced was much more severe than I had ever seen it. The vesicles had pus (or what looked like it) mingled with the lymph; the areola was very large and angry-looking; and the febrile disturbance considerable. In several instances there was inflammation of the lymphatics, and in one case axillary abscess. After a few "removes," however, the virus seemed to have been toned down, vaccination with this new lymph producing what our elders pronounced to be the original Jennerian cow-pock, which they considered to have greatly deteriorated.

Now, putting aside altogether the question of the fundamental identity of cow-pox and small-pox, I think these facts of interest as clearly showing that a modification takes place in the cow-pox virus by its "cultivation" in the human subject, and that this modification, very marked in its early stages, may tend to render it *too* mild, and thus impair its protective potency. Hence I should suggest to country practitioners to keep their ears open as to any recurrence of genuine cow-pox among cows, and to have recourse to any fresh "stock" that may come in their way, without allowing themselves to be baffled by the difficulties attending its first propagation, or alarmed at its unusual results.

An old friend, Mr. G. T. Clark, who, like myself, began life as a medical man, but early quitted practice for other pursuits, and who has been for twenty-two years chairman of the Merthyr Board of Guardians, has communicated to me the following as *his* experience in that large and populous union:—"Since the Compulsory Vaccination Act has been put into force the reports of our vaccine inspectors are returned weekly and read to the Board, and the division of the union has enabled the vaccinators to reach and keep in view the case of every child vaccinated. The result of these arrangements has surpassed our utmost expectations. Cases of small-pox were wont to be frequent. It is now some years since a case has occurred in the union."

I am, Sir, yours truly,

May, 1881. WILLIAM B. CARPENTER.

EXCISION OF THE HIP-JOINT IN CHILDHOOD.

To the Editor of THE LANCET.

SIR,—In your last issue, at page 826, is an abstract of the Report of the Committee of the Clinical Society on Excision of the Hip-joint in Childhood, and in reference to an important point connected with the operation, the following remarks are made, "Only the diseased bone should be removed, and the great trochanter only when diseased, or when there is extensive disease of the pelvis."

About thirty years ago, whilst the fierce controversy regarding this operation was being carried on, the late Sir William (then Mr.) Fergusson and I had the good fortune to be able to trace to her lodging a young patient who had undergone this operation in King's College Hospital some months before. We heard of her death, and fortunately were able to make an examination of the parts. At that time Mr. Fergusson did not always remove the trochanter, but contented himself with excising the diseased head of the bone, and he had adopted the plan in the case in question. The wound had never healed up; there had been a continued discharge, and on denuding the parts after death we found that the section of the femur was quite healthy, but that there was a loose and necrosed bit of bone about the size of a nut in the acetabulum. The escape of this piece of bone had been entirely prevented by the trochanter, which formed a complete covering for the acetabulum. Mr. Fergusson was much impressed by this fact, and from that time he always insisted upon the propriety of removing the trochanter as well as the diseased head of the bone, even in instances where that process was healthy, and where there was not any disease in the acetabulum. Bearing in mind this interesting and instructive examination, and the lesson taught by it and impressed upon me by my late master, I have invariably adopted the plan of removing the trochanter, whether diseased or healthy.

I am, Sir, yours obedient,

Wimpole-street, W., May 24th, 1881. HENRY SMITH.

INTESTINAL OBSTRUCTION.

To the Editor of THE LANCET.

SIR,—At the meeting of the Pathological Society held on May 17th, my friend and colleague Dr. Charlewood Turner showed a specimen taken from a case of acute intestinal obstruction, on which I had operated at the London Hospital when the patient was in a very critical condition. During the operation, which was performed under the carbolic spray, and at which I had the advantage of the assistance of my friend and colleague Mr. Reeves, I found that the cause of the obstruction was of a twofold character. Some coils of intestine had passed through a loop formed by the attachment of a diverticulum to the anterior abdominal wall, and in that position the intestine had become twisted on itself. In the report of Dr. Turner's remarks the twist is not men-

tioned. I disengaged the intestine by drawing it back through the loop, and then untwisted it; but I deemed it better to leave the diverticulum, the length and attachment of which I could not clearly ascertain, as division of it would have considerably complicated a comparatively simple and brief operation. This is my reply to the clinical inquiry of the President of the Pathological Society, who asked if at the time of operation it was evident what the nature of the band was, and whether the surgeon was prepared to cut through it if necessary. Had I been aware that Dr. Turner intended showing the specimen at the Pathological Society on the 17th inst., I should have endeavoured to be present to furnish more conveniently the supplementary information required for the full elucidation of an instructive case, which was satisfactory at least in the coincidence of the results of the post-mortem examination with our interpretation of the cause of obstruction at the time of operation.

I am, Sir, yours &c.,

Finsbury-square, May 20th, 1881. WALTER RIVINGTON.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS AND THE OFFICE OF CORONER.

To the Editor of THE LANCET.

SIR,—As I have felt myself compelled to take the very unusual course of declining to present a petition to Parliament, I will feel much obliged if you will publish the enclosed correspondence. My sole desire is that the profession may have the opportunity of forming their own opinion on the action I have taken, prompted as it has been by a life-long desire to place the claims of the well-educated physician in the very forefront of intellectual public life in all departments of the State in which his services may be called in requisition. It has ever been my motto, Ιατρος γαρ ανηρ πολλων ανταξιος αλλων. Faithfully yours,

ROBERT D. LYONS.

House of Commons' Library, May 24th, 1881.

King and Queen's College of Physicians in Ireland,
Dublin, May 12th, 1881.

DEAR DR. LYONS,—I am directed by the College to request that you will kindly take charge of the petition of the College relating to the law of coroners in Ireland (which I forward to you by this post), and present it to the House at the earliest opportunity.

I have the honour to be, dear Dr. Lyons,
Yours very faithfully,
J. MAGEE FINNY, M.D., Registrar.

Robert D. Lyons, Esq., M.B., M.P.
House of Commons, May, 1881.

MY DEAR DR. FINNY,—I have received the petition of the College on the Coroner's Bill, and I beg leave to say that with the fullest sense of my duty to the College, and my most anxious desire to comply with its behests in all things, I feel very great difficulty in presenting a petition to the House of Commons which seeks to impose a disability on members of the medical profession in regard to a public office. I fear that this opens up a question of great gravity, and may be but the initiation of further disabilities, which many would be but too ready to impose on a profession not naturally strong in its powers of public protestation. I find that there is a large feeling in the metropolis in favour of medical men as coroners, a recent election having been successful in placing Dr. Thomas as the fourth in succession to Dr. Wakley in the office of coroner for Middlesex. On the committee to secure his election were—Dr. Farquharson, M.P., Chairman, Sir W. Jenner, and other men of note. Dr. Thomas was elected by 2500 to a little over 300, strikingly showing the feeling of the electors. The University of Oxford appoints a medical man as university coroner, and other examples may be readily found. I am myself of opinion that a well educated medical man, such as we hope the licentiate of the future shall always be, is fitted for any station in life, and from ancient times to the present day medical men have filled the highest official stations with great public advantage. The peerage and the great orders of honour have been largely illustrated from the ranks of medicine, and in both the administrative and combatant branches of the services. Names occur at once to my mind of men whom the State has delighted to honour. I would ask you to put my humble duty and most profound respects to the President and Fellows, and may beg them to reconsider the petition with a view to striking out Clause 2, or to relieve me from the deep embarrassment in which I should find myself placed, by asking another member of the House to present the petition if they deem it right to adhere to its present form.

Believe me, dear Dr. Finny, faithfully yours,
R. D. LYONS, F.K.Q.C.P.I.

To the Knights, Burgesses, and Commoners, in Parliament assembled, of the United Kingdom of Great Britain and Ireland, the humble petition of the President and Fellows of the King and Queen's College of Physicians in Ireland, sheweth,—

That a Bill has been introduced into your honourable House, intituled "A Bill to Amend the Law relating to Coroners in Ireland"—ordered to be printed 20th January, 1881. Your petitioners have observed with regret that the Bill proposes to continue the most objectionable features of the existing Coroners' Law in Ireland. Your petitioners are of opinion that the system of appointing coroners by vote of the ratepayers is not calculated to secure men with the requisite judicial qualities and technical knowledge for the efficient discharge of their highly responsible duties; and, as these duties are essentially of a judicial character, your petitioners consider coroners should be appointed on the same grounds, and in a similar manner, as other judicial functionaries. Your petitioners observe that while medical evidence is essential for the efficient conduct of a coroner's inquiry into the cause of death, it by no means follows that there should be a medical judge to try cases where medical evidence may form an essential portion of the case. On the contrary, the medical evidence should be provided by a skilled medical expert, who should be a medical jurist and pathologist; and, in the opinion of your petitioners, every Coroner should have such an officer attached to his Court. To the present system of employing "any legally qualified medical practitioner at or near the place," as provided by Act of Parliament (Vict. 9 & 10 c. 37, s. xxxii.), your petitioners take exception. Medical men engaged in general practice are seldom skilled pathologists or medical jurists, and therefore their evidence on special points is of comparatively little value. Your petitioners are of opinion that a Bill which does not contemplate the removal of the above-mentioned abuses in the existing Coroners' Law must prove unsatisfactory, and they therefore suggest that any measure for the reform of Coroners' Law which may receive the support of Her Majesty's Government should contain the following essential provisions:—1. That all Coroners should be appointed and paid by the Crown, as other judicial functionaries are at present. 2. *That every Coroner should be either a barrister-at-law or on the roll of solicitors.* 3. That every Coroner should have at least two deputies to take his place in case of absence or overwork, and that these deputies should be qualified in like manner as the Coroner. 4. That every Coroner should have a skilled medical expert attached to his court. Such expert should be appointed by the Crown, and should determine in all cases whether a post-mortem examination is or is not necessary, and should act as assessor to the Coroner. 5. That in all cases where a medical practitioner has been in attendance shortly before, at, or immediately after death, he should be examined as a witness, except in cases where he is charged with causing the death. 6. That all other matters of detail as to salary and retiring allowance of Coroners should be regulated on the usual principles followed in paying judicial officials. 7. That the medical expert should be paid partly by salary and partly by fees for each inquest. 8. That all other medical witnesses should be paid fees for attending and giving evidence, in addition to expenses incurred; and that such fees should be not less than three guineas a day. 9. That a proper place should be provided, where practicable, for the performance of post-mortem examinations in connexion with coroners' inquests. Your petitioners humbly pray your honourable House to amend the Bill in conformity with the foregoing suggestions; and your petitioners will ever pray.

Signed and sealed on behalf of the College,
GEORGE JOHNSTON, M.D. Edin., President.
May 12th, 1881. J. MAGEE FINNY, M.D. Dub., Registrar.

PHTHISIS AND HYDROPATHIC ESTABLISHMENTS: A CONTRIBUTION ON THE CAUSATION OF PHTHISIS.

To the Editor of THE LANCET.

SIR,—It is not at all uncommon to find consumption in association with caseous, slowly progressing suppuration of bone. Moreover, this well-observed fact appears to be in accordance with the well-known experiments of Villemin and others, illustrating the production of acute tuberculosis by the inoculation of caseous and non-caseous inflammatory products. But why do we find in practice that such results happen in some cases and not in others? This it is not always easy to explain, but many reasons have been given, such as the varying susceptibility of different constitutions, the accidental proximity of the infective material to the vascular or lymph systems, and the influence of the atmosphere and minute organisms. Those practitioners who are eager to steer their cases of caries of bone away from the shoals of phthisis are apt to look out for tangible assistance; and, believing that the following failure will show very clearly one of the ways how not to do it, I offer it as a contribution on the subject.

In November, 1880, a gentleman, aged twenty-five, consulted me and made the following complaints: a cough for

the past ten months; hoarseness for four months; relaxation of bowels—two or three times a day—for six months; and loss of flesh—two stones in eighteen months. He handed me in writing his previous history and treatment, which it will be well to quote: "In January, 1879, I fell on the ice and bruised my face, my right knee and right breast. A month afterwards a swelling formed on the breast, getting larger up to June, when I went to ——— Hydropathic Establishment. There the doctor gave me the following orders. In diet strictly to be sparing in the use of flesh meats, taking such once a day only, and fish or fowl in preference twice or thrice a week; no soup or beef-tea, and eggs sparingly; to be sparing in the use of fat of all kinds, butter, milk, and foods made with milk; milk at supper to be especially avoided, and cornflour moulds preferable to milk puddings. Three meals allowed a day, and half a tumblerful of water to be taken before every meal. No luncheon or supper. Then as to baths. Every morning a rain bath, hot gradually reduced to cold, finishing with a canful of cold water dashed over the head and shoulders. Three times a week I had the ascending douche; this is like sitting on an ordinary W.C. seat, with the seat uncovered, and through a very small pipe, about a foot and a half below, water was projected against the anus. It was like a mild enema and brings on a desire for a motion very quickly. Every afternoon I had a spinal sitz bath—cold, deep—for ten minutes. On the three alternate days I took a Turkish bath, followed by a rain bath and descending douche. In addition certain body bandages worn to produce a 'crisis' created a sore on the abdomen, which discharged for over three weeks. Three days after admission the swelling was lanced, matter and blood escaping freely. With two days' intermission this treatment went on for ten weeks, and when I left on August 24th, 1879, the instructions were to carry out the same as far as possible."

My patient's story now runs on to the cough in Jan. 1880, and the development of laryngeal and intestinal complications. In Nov. 1880, there was softening of the upper part of the left lung, and early mischief in the right apex; there was ulceration of both vocal cords, and of the left margin of the epiglottis; and the signs were present which stamp diarrhœa as of tubercular origin. Over the fifth right rib, three inches from the sternum, was a sinus, almost healed over, communicating with carious disease of the rib. The patient grew steadily worse and died in February, 1881. His general health before the accident was good, he had a good family history, and he denied syphilis. Here, then, are certain clinical facts. A man of average health has a centre of infection accidentally set up. For ten weeks, and while the risks of infection were probably at their height, he was reduced by baths, exhausting both in character and in frequency. Lastly, he was restricted in his use of fats, milk, and nutrient foods, and advised so to continue. The deduction is that the infective material was first accidentally produced, the constitution was then as closely adapted to the bad influence as man could make it, the result being successful inoculation, phthisis, and death. The moral needs no telling.

I am, Sir, your obedient servant,

Ventnor, May, 1881. JAMES M. WILLIAMSON.

DR. KIDD ON THE CASE OF THE EARL OF BEACONSFIELD.

To the Editor of THE LANCET.

SIR,—In accordance with the love of large and liberal views, and the desire "to bring the catholic spirit into medicine, gathering all knowledge to the aid of suffering humanity," expressed by Dr. Kidd in his letter in last Saturday's LANCET, I have no doubt he will kindly favour your readers with a short clinical sketch of Lord Beaconsfield's case while under his care, including the treatment which enabled him to afford "*prompt and perfect relief*" after the two leading physicians of the day had "*failed to relieve the patient.*" The absence, hitherto, in the published reports of anything like a definite opinion of the pathology of his Lordship's case, would, I am sure, render such a sketch as I have suggested of much interest and value to your professional readers. I am, Sir, very truly yours,

W. UNDERWOOD WHITNEY.

Great College-st., Westminster Abbey, May 23rd, 1881.

MEDICAL INDICES.

To the Editor of THE LANCET.

SIR,—With the growth of scientific periodical literature the question of the formation of indices becomes year by year more important.

You are aware that while the various Jahrbücher, Revues, and Records publish collected abstracts of many important papers, they are necessarily very imperfect, and that the only attempt to deal fully with the subject has been by the publishers of the Index Medicus, edited by Dr. Billings, of the Army Medical Department Library, Washington; but from what I hear there seems to be financial difficulties in the way of carrying on this meritorious publication.

The object of my letter is to ask whether the whole subject of indices is not one for international co-operation, for the promotion of which the assistance of Government may fairly be asked. Such a scheme would not limit itself to medical science, but would embrace all.

It has also occurred to me that our medical weekly papers would greatly facilitate research if they would publish complete indices to their whole series up to date.

I am, Sir, yours truly,

Birmingham, May 10th, 1881. ROBERT SAUNDBY, M.D.

IRELAND.

(*From our own Correspondent.*)

THE annual meeting of the Fellows to receive the report of the Council of the Royal College of Surgeons has been fixed for Saturday, the 4th June, a date more satisfactory to the provincial Fellows than that usually arranged. By holding it on the 4th proximo a large number of the Fellows who come to town to be present at the annual election of President, Vice-President, and Council, which will take place on Monday, the 6th June, will be able to attend without much inconvenience, to receive and discuss the annual report. To the names of Messrs. Bennett, Baker, and Meldon, mentioned last week as candidates for a seat in the Council, may now be added that of Dr. William Roe, lecturer on midwifery in the College of Surgeons. Canvassing for candidates for Council has of late years been exercised so openly, more especially within the walls of the College, that a strong expression of opinion against its continuance was adopted by the Council of the College last year; and it is probable that at the ensuing election arrangements will be made to enable Fellows to fill up their voting papers without being overlooked.

No date for the first matriculation examination has been fixed in the scheme adopted by the Senate of the Royal University of Ireland, and as far as can be learned, it is very improbable that it will take place this year. Before granting the necessary funds the scheme must be discussed in Parliament, and, considering the state of public business, it appears doubtful if much progress will be made this session in the matter. Further efforts are being used to secure the Queen's University in Ireland from being dissolved, as contemplated by the University Education (Ireland) Act of 1879, a result which it is considered by a large number would be an infraction of the vested rights of the graduates of that University, and injurious to the interests of academical education in Ireland. Besides this, Mr. Gladstone would seem, from his recent utterances, not to regard the formation of the new University with very much favour.

The College of Physicians have adopted certain recommendations of a committee appointed to consider the Coroners (Ireland) Bill, now before a committee of the House of Commons, and have requested Dr. Lyons, M.P. for Dublin, to present them to the House. They consider that coroners should be appointed in the same way as other judicial functionaries, their duties being essentially of a judicial character, and that they should be selected and paid by the Crown; that every coroner should have two deputies and also a skilled medical expert attached to his court, the latter official to be paid partly by salary and partly by fees. Further, that the practitioner in attendance shortly before, at, or immediately after death, should be examined as a witness, and receive not less than three guineas a day for

his evidence. With most of these suggestions there will probably be little disagreement in the profession, but the recommendation that the coroner should be either a barrister-at-law or on the roll of solicitors is most startling as coming from a College of Physicians. This recommendation of the College has created considerable dissatisfaction, and must be regarded as a very unwise one.

The fifty-third annual meeting of the supporters of the Coombe Lying-in Hospital was held last Tuesday, presided over by the Right Hon. the Lord Mayor of Dublin. During the past year the expenditure exceeded the income by a sum of £252 16s., and the bank account has been overdrawn by £1000. Last year 502 patients were admitted to the wards of the hospital, and 2165 labour cases were attended at their own homes. There were also 117 patients under treatment for diseases peculiar to women, and 6585 patients obtained advice and medicine at the dispensary. The hospital is situated in the midst of a poor, densely populated district, and the charity is one which has strong claims on the public. During the meeting, a letter was received from Dr. G. H. Kidd, enclosing a cheque for £100.

A new preparation, the iodate of quinine, has recently been introduced in Dublin by Dr. Cameron, city analyst; and many practitioners who have prescribed it speak highly of its efficacy in various affections, including neuralgia, chronic rheumatism, secondary syphilis, and some forms of pulmonary congestion. It is a granulated effervescing preparation, each drachm, the ordinary dose, containing two grains of the iodate.

The first of a series of lectures on Health, under the auspices of the Ladies' Sanitary Association, was given this week in the theatre of the Royal Dublin Society. The lecturer was the Registrar-General for Ireland, and the subject selected "The Causes of Disease and Death in Dublin."

Several cases of small-pox have recently been admitted into Queenstown Intercepting Hospital. Of these one has died, and the rest are progressing favourably.

The Lords of the Treasury have sanctioned a loan of £28,000 for the construction of waterworks for Sligo.

The thirty-ninth annual meeting of the Royal Medical Benevolent Fund Society of Ireland will be held at the Royal College of Surgeons on the 6th June, when the chair will be occupied by Mr. Alfred H. McClintock, President of the College.

PARIS.

(From our own Correspondent.)

THE Ministerial proposal to create six new chairs for so many Government *protégés* has not been received with favour at the Faculty of Medicine, and four of the would-be professors will be disappointed, at any rate for the present, in their hopes. A new clinical lectureship on Nervous Diseases will be instituted for Professor Charcot, and the second chair of Midwifery has also been accepted, but the four others on Dermatology, Public Sanitation, International Hygiene, and Medical Toxicology were negatived by the Faculty as of more than doubtful utility. This decision will be cordially ratified by the majority of the profession; for setting aside all sentimental interest in the prestige of the Paris school, it cannot but be felt that any public money at the disposal of the Ministry would be better employed in reducing the vexatious tax levied as *patente*, than in the creation of useless chairs, to satisfy the personal aspirations of certain influential practitioners.

Some statistics have already been issued by the new Municipal Laboratory, concerning the extent to which food adulteration is practised in this country. Of twenty samples of milk, seven were good, six passable, and seven bad; of three samples of beer, one only was good; of jams, eight samples out of nine were bad. Three samples of cider were all bad. Of one hundred and twenty-three specimens of wine examined, three were good, eighty-four bad, and the rest passable. The only article examined which was constantly of good quality was pork, four hams which had been sent for inspection being all declared free from trichinæ.

Apropos the ptomaines, M. Armand Gautier gives a new list of vegetable bases which can be distinguished from the cadaveric alkaloids by their chemical reaction to ferricyanide of potassium and a salt of iron. These are, anemonine, cryptopine, hellenine, quinidine, and sabadilline. In the cases of hyoscyamine, emetine, igosurine, veratrine, colchicine, nicotine, and apomorphine, the result of the test is doubtful. Experiments made with a number of toxic substances show that many artificial alkaloids and other bodies have the same behaviour in the presence of these chemicals, as the ptomaines; such, for instance, as naphthylamine, certain phenylic bases, and the pyrridic, hydropyrridic, allylic, and acetonic alkaloids; so that this test, although still of great value, loses much of its certainty.

At the Société Médicale des Hôpitaux, M. Lereboullet related a case of malignant diphtheria, treated successfully by hypodermic injections of pilocarpine. When the treatment was commenced, the little patient (a girl of eleven) was unable to swallow, and the urine, which was passed in very small quantity, was albuminous. Besides the injections, a spray of carbolic acid solution was constantly applied to the fauces, and ice was worn round the neck. Enemata of peptones were administered twice a day, and of carbolic acid once. Frictions of the surface with ether and spirit lotions were also employed. Pilocarpine also deserves a trial for the relief of the pains of locomotor ataxia and other spinal affections giving rise to severe paroxysmal suffering. Several observers are now using it in such cases, and the results, as far as they go, are satisfactory.

Obituary.

JAMES SHERLOCK, M.D., M.R.C.P.

ANOTHER valuable life has been prematurely taken from amongst us. Dr. Sherlock, who for twenty-seven years held the post of Physician to, and Medical Superintendent of, the Worcester City and County Asylum, died on Friday, the 13th inst., at the early age of fifty-three, after an illness of only three days.

For some time past Dr. Sherlock's health had given anxiety to his friends. A tendency to ill-developed gout, accompanied by a somewhat weak circulation, had lately shown itself, a condition generated doubtless by the incessant demands upon his strength, which nearly thirty years of conscientious discharge of the laborious and trying duties of a large asylum had made upon his constitution. Dr. Sherlock was seized with acute congestion of the liver on Tuesday, the 10th. On Thursday the base of the right lung became affected, the congestion extending during the night to the whole of both lungs, which overloaded the weakened heart, and death took place at half-past eleven on the following morning.

Dr. Sherlock was one of several excellent asylum superintendents who had the advantage of a training for the special work under the late Dr. Skae, of the Royal Edinburgh Asylum. After taking his degree at the University there, he became assistant to Dr. Skae, and as soon as he had made himself master of the details of asylum practice he was appointed superintendent of James Murray's Asylum at Perth. When still only twenty-six years of age, through the recommendation of Dr. Skae, supported by that of the then chairman, Mr. Curtler, he was appointed to the more responsible post at Worcester. At that time the inmates of the latter asylum numbered only about 250, whereas now they amount to nearly 800. The development by frequent enlargements to its present size, and the character, second to none in the kingdom, to which the asylum at Powick has attained, are mainly due to the unwearied efforts of Dr. Sherlock to attain for his asylum the highest point of efficiency. But he never suffered the laudable desire to keep down expenses to interfere with the efficiency as to means of cure, or with the comfort of unfortunate patients under his care. Consequently the loss of so valuable an officer is most keenly felt by the committee of management, who at all times have placed the utmost confidence in their superintendent; for whilst maintaining, as it is right they should do, a vigilant supervision of the work at the asylum, they have always most generously supported their chief medical officer throughout an unbroken connexion of twenty-seven years.

Dr. Sherlock leaves a widow (a connexion of Dr. Skae's) and six children to mourn his premature departure.

The funeral, which took place on Tuesday, the 17th, was attended by crowds of friends, amongst whom were several members of his committee and many of his professional brethren in Worcester and Malvern, by whom he was loved as a brother.

HUGH JAMESON, F.R.C.S. ENG.

DEPUTY INSPECTOR-GENERAL JAMESON was a distinguished member of the Naval Medical Service, who had seen in his youth much active service on the West Coast of Africa in the suppression of the slave trade, and was in 1840 surgeon of H.M.S. *Castor* at the battle of St. Jean d'Acre, where that ship suffered more than any other in the engagement. He afterwards served in the flag-ships on the Cape of Good Hope and Portsmouth stations, and subsequently was attached to the Naval hospital at Chatham and to Woolwich Dockyard. He retired from the service in 1864, and had since resided at Upper Norwood, where he died on the 16th inst. from paralysis and cardiac weakness. Highly educated and well informed, skilful in his profession, to which he had been trained at St. George's and Middlesex Hospitals by some of the most eminent surgeons of their day, Mr. Jameson enjoyed the respect and esteem of all who knew him. As for many years he held prominent naval appointments, his friends in the service are very numerous, who will regret in him the loss of an honourable, amiable, and accomplished gentleman. Mr. Jameson had three war service medals, and was elected an honorary Fellow of the Royal College of Surgeons in 1844 in compliment to his high character and professional reputation. His membership dates as far back as 1825, and we believe he was in his seventy-seventh year at the time of his decease.

THOS. BIRKHEAD OLDFIELD, M.R.C.S. ENG., L.S.A.

THE death of this much-esteemed and talented medical man took place at Heckmondwike on April 29th, at the age of sixty-two, from pyelitis. He had been a great sufferer for some seven years, and was only occasionally able to attend to practice. For five months previous to his decease he had been confined to bed. Born at Dewsbury Moor in 1818, he, after leaving school, was apprenticed to Mr. Senior, surgeon in Batley. He studied his profession at Leeds and Westminster Hospital, and with great assiduity and success. After a short term of practice at Wilsden, near Bradford, he settled at Heckmondwike, and for thirty-three years pursued his profession—to him a field in which his active mind took delight. He was a writer of no mean powers, on both professional and other subjects. In THE LANCET papers have appeared from his pen on "Placenta Prævia," "Hypertrophy of the Kidney," &c. The Yorkshire newspapers have been stored with articles from his pen on local antiquities, naturalist rambles, &c. Among these, "Heckmondwike, Past and Present," and "Heckmondwike Seventy Years Ago," are the chief. The deceased was buried on May 2nd, a large public funeral being organised by the Local Board to manifest their respect for their late officer of health. Mr. Oldfield was a widower, and leaves a family of four—one son and three daughters.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on the 18th inst.:—

Alexander, Frederick William, Hatton-garden.
Chard, R. A. Selway, Upton Lovell, Wilts.
Coutts, John Alfred, Aldridge-road.
Currie, Oswald James, Blackheath.
Dixon, George Frederick, Market Harborough.
Jones, William Wansborough, Macclesfield.
Owen, John Morgan, Fishguard, Pembrokeshire.
Rigby, John, L.S.A., Preston.
Rowley, Charles, Barnsley.
Shore, Herbert George, Stoke, Staffordshire.
Tripp, Charles L. H., Tiverton, Devon.
Wood, Louis Edmund, Marlborough, Wilts.

The following gentlemen were admitted Members of the College on the 19th inst.:—

Anderton, James Edwin, Blackheath.
Boswell, John Irvine, Guildford-place.
Buxton, Joseph Wilmot, Harrington-street.
Cranstone, William Lefevre, L.S.A., Hemel Hempstead.
Evans, Thomas G. C., Seaton, Devon.
Heyman, Frank Gibbins, L.R.C.P. Ed., Bristol.
Laurent, O. A. Eugene, Mauritius.
Mudge, Thomas, Hayle, Cornwall.
Medley, Harold T. D., Kensington-gardens-square.
Slater, William, Taunton, Somerset.
Tew, James Scott, L.S.A., Stourbridge, Worcestershire.
Udale, Joseph James, Finsbury-park.

Of the 95 candidates who were examined during last week, 42 passed to the satisfaction of the Court and obtained their diplomas; 7 passed in Surgery, and when qualified in Medicine will be admitted Members; the other 46, having failed to reach the required standard, were referred for six months' further professional study. Four candidates who had passed in Surgery at previous examinations, having subsequently obtained a medical qualification recognised by the College, were also admitted Members.

The following gentlemen passed the First Part of the Professional Examination for the Fellowship at meetings of the Board of Examiners on the 21st, 23rd, 24th, and 25th inst.:—

W. S. A. Griffith, A. Dingley, Alfred J. Anderson, E. R. Williams, Edmund W. Roughton, and Frederick J. Paley, St. Bartholomew's Hospital; G. S. Watson and M. H. Bultcel, St. George's Hospital; W. Willis, Glasgow, Edinburgh, and Middlesex Hospital; Joseph Collier and Alexander Wilson, Owens College, Manchester; A. Q. Silcock, University College; Ernest E. Maddox, Edinburgh; Walter E. Wynter, Middlesex Hospital; Sidney Worthington and Wheelton Hind, Guy's Hospital; Charles A. Ballance, St. Thomas's Hospital, Henry W. Pigeon, Cambridge and Guy's Hospital; John C. Davies, London Hospital; John Y. Bostock, Cambridge; Herbert H. Ashdown, Edinburgh; D'Arcy A. Power, Ozon and St. Bartholomew's Hospital; William H. Horrocks, Liverpool and University College; Charles A. Morris, Cambridge; J. Donald, Charing-cross Hospital; Ernest Hudson, University College; Charles H. Wise, Queen's College, Galway, and Westminster Hospital; Walter T. Brooks, King's College; Edward Harrison, Cambridge; Louis A. Dunn, Guy's Hospital; David L. Jones, Charing-cross Hospital; and Joseph L. Hewer, St. Bartholomew's Hospital.

UNIVERSITY OF CAMBRIDGE.—The following have passed the Second Part of the Third Examination for the M.B. Degree:—

FIRST CLASS.

Coxwell, B.A., Christ's. | Mason, B.A., Pembroke.
Lapage, M.A., Magdalen. | Tooth, M.A., St. John's.

SECOND CLASS.

Birdwood, B.A., St. Peter's. | Wedmore, B.A., St. John's.
Standert, M.A., Corpus.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their Final Examination during the recent sittings of the Examiners, and were admitted Licentiates in Dental Surgery:—

Thos. Gaddes, Carlisle; Edw. Innes Ayton, Edinburgh; Maximilian Frank Simson, Lee, Kent; Hugh Fraser, Largs, Ayrshire; Henry Wyles, Leeds; Ernest Burt, Weymouth.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their Final Examination during the April sittings of the Examiners, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

James Booth Clarkson, Lancaster; James Daniel Ross, Co. Cork; William John Chichele Nourse, Isle of Wight; Robert Webster, Australia; William Boulter Broadribb Perrin, Somersetshire; James Johnstone, Dumfriesshire; Charles Swanston, Australia; David Carruthers, Dumfriesshire; James Arnott Hunter, Newcastle, Ontario; John Paulin, Peel, Isle of Man; Frank Fraser, Portsmouth; Robert Roberts, Chester; George Daunt, Co. Cork; Thomas Henry, Co. Tyrone; John Philip Sullivan, Dublin; James Hilditch Bradshaw, Lancaster; John Dugdale Astley, East Langden, Dover; George William Macartney, Colombo, Ceylon; Francis James Power, Maidstone; Francis Harper Treherne, London; David William Johnston, Whitehaven; Richard Clegg, Burnley; John Gainfort, Wexford; George Latham, Derby; William Abraham Dartwell, Rochester; Titus Holden Harwood, Burnley; Henry Dobson Osborne, Londonderry; David Duncan Main, Kirkmichael; James Murdoch Cameron, Edinburgh; George Henry Ainley, Todmorden; Charles Edward Watson, Hertfordshire; Edwin Brownlow, Ravendale, Lincoln; John Henry Dean, Sunderland; Frederick Francis German, Staffordshire; Thomas Hanson Smith, Keighley; William Huey, Adelaide, South Australia; Edmund James Armstrong Rogers, Grafton, Ontario, Canada; David William Noble, Co. Leitrim; James Satterthwaite, Lancashire; Charles Edward Lay, Suffolk; Isaac Kiddle, Surrey; Owen Frederick Seymour Evans, New South Wales; Eugene Joseph Geary, Cork; Isaac Holmes, Liverpool; Alexander Salvador Sabina Fernandes, India; Charles De Wolfe Heard, Prince Edward Island; Richard Æneas Delaney, Co. Mayo; Geoffrey M'Carthy, Co. Kerry; George Thomas Webbe, Poona; René Tubin Clément, Cape of Good Hope; Cornelius Maloney, Co. Limerick; John Murray, Atyth.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on May 19th:—

Butler, Thomas Edward, Cape of Good Hope.
Cockell, Edward Seaton, Amhurst-road, Hackney.
Craddock, Sidney Ernest, Upper Woburn-place.

The following gentleman also on the same day passed the Primary Professional Examination:—

Brewster, William, St. Bartholomew's Hospital.

HER MAJESTY has directed that 100lb. of cast-off linen be forwarded for the use of the Victoria Hospital for Children, Queen's-road, Chelsea.

AT the next general meeting of the Society of Public Analysts, to be held at Burlington House on June 1st, Mr. Wigner will introduce the subject of the Scale for the Valuation of Impurities in Drinking Waters, which has been in use by some of the members of the Society.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual meeting of this Society was held in the rooms of the Royal Medical and Chirurgical Society on May 18th. The President, Sir George Burrows, took the chair punctually at 5 P.M. After the election of officers for 1881-2, the report of the Court of Directors of the proceedings of the Society during 1880 was read by the secretary, from which it appeared that a sum of £2942 had been distributed during the past year among 60 widows, 15 orphans, and 3 recipients from the Copeland Fund. The expenses of the year were £177 11*s.* 3*d.* The total receipts available for payments of grants and expenses had been £3132 17*s.* 5*d.*; the grants and expenses had been £3119 12*s.* 3*d.* During the year one widow had died and two had become entitled to grants, two orphans had become ineligible for further grants, and three had been elected. Eight members had died and six had resigned, and only three new members had been elected, leaving a total of 375 members in the books at the end of the year. Dr. Semple, Dr. Self, and Dr. Augustus Brown, Dr. Cumberbatch, Mr. Spencer Watson, and Mr. Vasey were elected directors in the place of the six senior who retired. The customary votes of thanks having been passed, it was resolved that the Court of Directors should be requested to consider the desirability of sending a circular to all medical men residing within the area included within the former and present limits of the Society.

UNWHOLESOME FEEDING-BOTTLES.—Some feeding-bottles having a fetid odour were lately brought by Dr. du Mesnil from a *crèche* to the Paris Municipal Laboratory for examination. M. Fauvel found that the milk remaining in all smelt badly, was acid and half-coagulated; the globules were deformed, and numerous very lively bacteria, along with some vibriones, were present. On cutting open the caoutchouc tube throughout its length, coagulated milk with small organisms was met with; but a still more important fact was the presence in the nipple of a mass of vegetation of cryptogamic nature. Sown in whey, this developed considerably in a few days. A visitation of all the *crèches* was arranged by the police and medical authorities, and the following was the result:—Of 31 feeding-bottles examined in 10 *crèches*, 28 contained, in the nipple, the caoutchouc tube, and in some cases in the glass bottle, vegetations of the kind indicated, as well as bacteria, &c. Several that had been washed carefully, and were considered ready for use, still contained these cryptogams. Two feeding-bottles in a very bad state were found to contain pus and blood corpuscles; the children who had used them had injuries in the cavity of the mouth. It is thus probable that saliva enters the feeding-bottle, and its ferments are added to those of the milk. The acidity of the milk is attributed by M. Fauvel to the bacteria present. The influence of this condition of things in the development of intestinal affections, of which so many infants become the victims, seems to call for serious investigation.—*The Times.*

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest*

ADAMS, M. A., F.C.S., has been reappointed Public Analyst for the Borough of Hythe.

BENHAM, F. L., M.R.C.S.E., M.B., B.S., has been appointed Assistant Medical Officer to the New Infirmary, St. Marylebone, at a salary of £130 per annum, with furnished apartments, rations, and washing.

CARTER, R. B., F.R.C.S.E., has been appointed Ophthalmic Surgeon to the Bolingbroke House Hospital for Paying Patients, Wandsworth-common.

CLARK, T., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Dunster District of the Williton Union.

FAIRLEY, Mr. T., has been reappointed Public Analyst for the Liberty of Ripon.

GUNN, R. M., M.A., M.B., C.M., M.R.C.S.E., has been appointed Ophthalmic Surgeon to the North-West London Free Dispensary for Children.

HADDEN, W. B., M.D., M.R.C.S.E., has been appointed Physician to the St. George's and St. James's Dispensary, vice M. H. Lackerstein, M.D., resigned.

HALL, S., M.B., M.R.C.P., has been appointed Assistant-Physician to the Metropolitan Free Hospital.

LUNN, J. R., M.R.C.S.E., L.R.C.P., has been appointed Medical Officer to the New Infirmary, St. Marylebone, at a salary of £450 per annum, with unfurnished house, coals, gas, and washing.

MICKLE, D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Peckhill District of the Thirsk Union.

MORGAN, W. L., M.A., M.R.C.S.E., has been appointed Surgeon to the Radcliffe Infirmary, Oxford.

NANCE, Mr. H. C., has been appointed House-Surgeon to the Whitehaven and West Cumberland Infirmary and Fever Hospital, vice Hoyle, resigned.

OLIVER, J., M.B., C.M., has been appointed House-Surgeon to the Durham County Hospital.

RICHARDSON, R. T., M.R.C.S.E., L.S.A.L., has been appointed Assistant Medical Officer to the Leeds Union Infirmary, vice Mr. H. C. Oakley, resigned.

RICHARDSON, T. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Fourth District of the Norwich Union.

SUTTON, Mr. T., has been reappointed Public Analyst for the County of Norfolk.

WALMESLEY, F. H., M.D., has been appointed Senior Assistant Medical Officer to the Metropolitan Asylum, Leavesden, vice C. A. Mercier, M.B., F.R.C.S., resigned.

WHITEHEAD, H. R., F.R.C.S.E., has been appointed Assistant-Surgeon to the Royal Westminster Ophthalmic Hospital.

Births, Marriages, and Deaths.

BIRTHS.

CUNNINGHAM.—On the 17th inst., at Blacket-place, Newington, Edinburgh, the wife of Deputy Surgeon-General Cunningham, of a son.

EDMUNDS.—On the 21st inst., at Cwmbran House, near Newport, Mon., the wife of Richard Edmunds, M.R.C.S.E., L.R.C.P., of a daughter.

FENN.—On the 19th inst., at Richmond, Surrey, the wife of Edward L. Fenn, Esq., M.D., of a son.

GALLOWAY.—On the 19th inst., at Epping, the wife of Arthur Wilton Galloway, M.R.C.S.E., L.R.C.P., of a son.

HARDWICK.—On the 19th inst., at Pillar House, Needham Market, Suffolk, the wife of Fredk. S. Hardwick, M.D., of a son.

JENKINS.—On the 12th inst., at Liskeard, the wife of J. H. Jenkins, M.R.C.S.E., L.R.C.P.Ed., of a son.

VIVIAN.—On the 22nd inst., at Chase Side, Southgate, N., the wife of R. T. Vivian, M.R.C.S.E., L.R.C.P.E., of a son.

MARRIAGES.

ALLEN—TURNER.—On the 19th inst., at the Parish Church of St. James, Grimsby, by the Rev. J. P. Young, M.A., Vicar, Thos. W. J. Allen, L.R.C.P.L., M.R.C.S.E., to Jennie, youngest daughter of the late George Byron Turner, Esq. No cards.

FLANET—LAFONE.—On the 17th inst., at SS. Mary and George Church, Cockington, Torquay, by the Rev. W. Law, M.A., assisted by the Rev. Henry Fairley, M.A., of All Saints, Daventry, and the Rev. H. L. Bellhouse, M.A. (cousin of the bride), James Blaney, M.R.C.S.E., of Penryn, Cornwall, to Mercy Annie Constance, daughter of the late S. F. Lafone, of Monte Video.

FARNELL—COLGATE.—On the 24th inst., at St. Saviour's, Eastbourne, by the Rev. J. H. Cheadle, M.A., Minor Canon of Westminster, assisted by the Rev. T. W. Myine, Curate of St. Saviour's, Henry Dawson Farnell, M.R.C.S.E., of The Goffs, Eastbourne, to Mary, daughter of Robert Colgate, F.R.C.S., of Hempstead House, Eastbourne.

FISHER—POLLARD.—On the 21st inst., at the Pro-Cathedral, Demerara, Frank Charles Fisher, of the Government Medical Service, to Mary Eliza Rosalie, youngest daughter of the late W. B. Pollard, Esq., Auditor-General of British Guiana.

WYATT—SHEPHERD.—On the 18th inst., at St. Augustine's, Highbury, William Thomas Wyatt, M.A., M.B., of Stamford-hill (son of Sir William Henry Wyatt), to Edith Anne, fourth daughter of the late Edw. Shepherd, Esq., of Aberdeen-park, Highbury, Magistrate for the County of Middlesex.

DEATHS.

BROWNE.—On the 22nd ult., at Ebor Lodge, Albion-road, Stoke Newington, Henry Browne, L.R.C.P. & L.S.A.L., aged 36.

CHARLETON.—At Gloucester, of heart disease, G. W. Charleton, M.D., F.R.C.S.E.

FRASER.—On the 3rd ult., at Brockville, Ontario, Allan Hugh Fraser, M.D., aged 52.

LYLE.—On the 24th inst., at 102, Rye-hill, Newcastle-on-Tyne, Robert Lyle, M.D.

PEILE.—On the 7th inst., on board the s.s. *Agamemnon*, in the Suez Canal, off Ismailia, Bransby Cooper Peile, M.R.C.S.E., L.S.A.L., of Shepherd's-bush (son of the late Thomas Hanson Peile, Esq., and grandson of the late William Babington, M.D., F.R.S.), in his 55th year.

ROPER.—On the 23rd inst., at Exeter, Charles H. Roper, M.R.C.S.E., L.S.A.L., aged 53.

WHITAKER.—On the 19th inst., at North Walsham, James Sealy Whitaker, L.S.A.L., M.R.C.S.E., eldest son of the late James Samms Whitaker, M.R.C.S.E., F.L.S., aged 23.

WHITLEY.—On the 20th inst., at Bedlington Vicarage, George Whitley, M.D., aged 65.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, May 26th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 20	29·99	W.	56	50	93	64	46	..	Cloudy
" 21	30·23	W.	55	50	90	70	42	..	Bright
" 22	30·42	E.	69	59	107	73	47	..	Bright
" 23	30·24	E.	64	56	106	73	49	..	Fine
" 24	30·06	E.	63	59	104	70	51	..	Fine
" 25	29·80	S.E.	59	55	107	76	49	..	Fine
" 26	29·73	N.E.	60	58	81	65	55	·06	Overcast

Medical Diary for the ensuing Week.

Monday, May 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE.—Cantor Lectures: Mr. R. Brudenell Carter, "On Colour Blindness and its Influence upon various Industries."

Tuesday, May 31.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On Non-Metallic Elements."

Wednesday, June 1.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
EPIDEMIOLOGICAL SOCIETY.—3 P.M. Annual General Meeting:—Election of Office-Bearers. Annual Report of the Council.—Mr. George Fleming, "On the Transmissibility of Diphtheria from Animals to Mankind."
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Wiltshire, Dr. Brunton, Dr. Godson, and others.—Dr. J. Hickinbotham, "On Notes on a Case of Placenta Prævia complicated by a large Myoma."—Dr. Mansell Moullin, "On a Case of General Œdema without Anasarca."—Dr. Barnes, "On a Note on the so-called Lithopædion."

Thursday, June 2.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On Magnetism."

Friday, June 3.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor W. G. Adams, "On Magnetic Disturbance, Auroræ, and Earth Currents."

Saturday, June 4.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor C. E. Turner, "On Russian Literature: Gogol."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE half-yearly Primary or Anatomical and Physiological Examination for the Fellowship of the College was commenced on the 20th instant, when the following questions on Physiology were submitted to the ninety-eight candidates—viz., seven seniors, twelve juniors, and four who had not passed any examination. The candidates were required to answer at least three of the four questions in the time allowed—viz., from 11 A.M. to 2 P.M.:—

1. Describe the minute structure of the two outer layers of the retina. What are their functions? Describe the effects of light upon them in the living eye.

2. Contrast the tension of the oxygen and carbon dioxide contained in venous and arterial blood respectively with the partial pressure of those gases in the pulmonary alveoli. Compare the gas-interchange which takes place normally with that which occurs in suffocation.

3. Enumerate the different kinds of proteid substances found in the human body. State where they are found, and give their distinctive characters.

4. Describe the formation of a blood-clot. Upon what does it depend? Mention the circumstances under which the blood may clot within the vessels, and describe the stages of the process. How may the coagulation of shed blood be prevented?

The following were the questions on Anatomy, from 3 to 6 P.M., and three out of the four to be answered in that time:—

1. Describe the arches of the foot, and the ligaments and muscles by which they are maintained.

2. Describe the dissection necessary to expose the left vertebral artery from its origin to its entrance into the skull.

3. Describe the spinal column as a whole:—First, in reference to its curves, and the manner in which the several vertebræ are modified in shape in association with these curves; secondly, in reference to the movements which take place in its different parts, and the means by which these movements are effected and regulated.

4. The subject being in the supine position, describe the dissection by which you would expose the whole of the obturator externus muscle and its tendon.

AN APPEAL.

To the Editor of THE LANCET.

SIR,—Will you allow me to ask the influence of any of your readers who may be in a position to assist on behalf of Ethel Breeze, a twin daughter of the late R. Goodwin Breeze, M.R.C.S., who is a candidate for election on June 10th into the Royal Asylum of St. Anne's Society. Mr. Breeze was a former student of University College, London, and practised for some years at East Finchley, where he died after a short illness in September, 1880, leaving a widow and ten children in very reduced circumstances. The case is one which has been investigated not only by the committee of the St. Anne's Society, but also by the committee of the Medical Benevolent College, who had recently a presentation to St. Anne's to bestow, but unfortunately had a more urgent case before them. The urgency of the case of Ethel Breeze has since that time been increased by the fact that the mother has lost an imbecile inmate from whom a large proportion of her income was derived, and I venture, therefore, to ask my medical brethren for any influence they may be able to exert on her behalf.

I am, Sir, yours obediently,

Cavendish-square, May 23rd, 1881. CHRISTOPHER HEATH.

P.S.—Since the above letter was written a friend of the family has undertaken to purchase the admission of the other twin provided Ethel be elected.

ROYAL MEDICAL BENEVOLENT COLLEGE.

AN old correspondent who annually draws attention in our pages to the facts so well described in the last number of THE LANCET by Dr. Timothy Richardson, in confirming all he has there stated, adds that out of the fourteen candidates for the pensionerships in the above institution, only four had been subscribers; and out of the forty candidates for foundation scholarships, the parents of only five had been subscribers. Like many of his friends, he always gives his votes to those who have been subscribers. On the present occasion he certainly would not support the house-list.

DESQUAMATION AFTER DRUGS AND AFTER SCARLATINA.

To the Editor of THE LANCET.

SIR,—In your number of April 23rd I noticed a letter signed "Vigilans," which has reference to desquamation of the skin resulting from diseased conditions other than measles, scarlet fever, &c. I have a case under my care at present which may perhaps be thought interesting as bearing upon this question. A lady aged seventy-three, whilst nursing her brother (a medical man), fell ill with what I considered to be rheumatic fever. Several joints were affected, profuse acid perspiration, and long-continued high pyrexia accompanied the malady. The temperature was for a long time unaffected by the remedies—salicine, quinine, &c.—which were used, and remained even after the swelling in the joints had subsided as high as 101° at noon for some days. After convalescence was established, and the fever had abated, I was surprised to find that my patient was "peeling," as she termed it, "from head to foot." The desquamation was in most places branny, and from the soles of the feet and palms of the hand larger portions, some the size of a shilling, came away. She had had scarlet fever when a child, and during the present illness had no throat symptoms, nor was there any rash. Her tongue throughout the whole time was like raw beef. I need hardly say that no drugs of the nature of turpentine were used, so that that theory of desquamation was of no value here.

I may mention that after an acute attack of croupous pneumonia, which I had about ten years ago, I scaled all over, and can well remember the large desquamatory patches coming off my hands and feet. It behoves all members of the profession to examine more closely into the nature of this process, so that in future its clinical importance may be justly estimated.—I remain, Sir, yours faithfully,

Canonbury-lane, N., May 18th, 1881. A. GEORGE BATEMAN.

To the Editor of THE LANCET.

SIR,—Your correspondent, "Vigilans," quarantined his patient on very slight grounds. With, as "Vigilans" says, a slow pulse, normal temperature, and no other history of scarlatina beyond desquamation of the hands, it was unnecessary. "Vigilans" does not tell us whether the desquamation was palmar or dorsal, or whether he noticed the feet and other parts of the body. I quite fail to see that "marked desquamation in large flakes of the skin of the hands so strongly suggests a scarlatinous poison."

There are many border cases in which there is a doubtful rash, which may or may not be followed by it. In a household of four children, three had well-marked rötheln, and no desquamation; the fourth child had the same general symptoms as the others, but the rash was confined to the legs, and showed itself in immense purpuric patches, which alone desquamated. Again, of three children in another house, the first had well marked diphtheria, no desquamation; the second, ten days after the first, had true scarlatina and desquamation; the third, four days after the second, had simple tonsilitis, no rash or desquamation. I have observed them carefully for seven weeks since the first one was attacked, and am certain that the first and third were entirely free from it.

I find that desquamation is a frequent sequela of disease. It occurs in many cases of continued pyrexia from whatever cause, but frequently after acute pneumonia and continued fevers. Locally it takes place after gout, erysipelas, some forms of erythema, and after the application of cataplasms. The hands of a patient compelled to take rest desquamate, and it is a common thing in newly-born children. Given other symptoms it may confirm a diagnosis of scarlatina, but alone it most assuredly is not diagnostic.

I infer from observations that desquamation is due to continued pyrexia, and that any disease, local or general, septic or otherwise, which is accompanied by superficial capillary congestion, may, if not quickly relieved by diaphoresis, be followed by desquamation.

I am, Sir, yours faithfully,

A. M. ROBERTS, L.K. & Q.C.P.I.

Buckhurst-hill, April 26th, 1881.

To the Editor of THE LANCET.

SIR,—The interest in the discussion on desquamation after scarlet fever in your columns does not appear to have yet ceased, as evidenced by the interesting letter of "Vigilans" and your own leading article in the same week. "Vigilans" asks for the experience of others as to the occurrence of desquamation after the administration of certain drugs.

A few weeks ago I saw a young man suffering from a profuse erythematous eruption from taking copaiba, and this was followed by the most copious desquamation from head to foot. In the late discussion have not two points been lost sight of?—first, that the desquamation is the result of the erythematous eruption; and, secondly, that we have no sufficient reason for concluding that the desquamating epidermis continues to be the bearer of infective particles, however long the process may continue, or that it may not be disinfected before it separates?

That the desquamation is the consequence of the erythema irrespective of the cause of the latter appears from its following erythema resulting from other causes, and also from the desquamation being proportionate (*ceteris paribus*) to the intensity of the erythema, and not to that of the other results of the scarlet fever. I have heard and read of desquamation following scarlet fever when there has been no eruption, but in a large experience have never seen such a thing to my knowledge, and its occurrence under those circumstances is not in accordance with the notably direct proportion they bear to each other when an eruption has existed. A very considerable eruption I have often found escape the notice of the parents of the patient.

With regard to the second point, I may observe that I have so often seen children whose cuticles were still desquamating playing freely with others that I have learned not to forbid it, provided three weeks have elapsed from the onset of the fever, that all other symptoms of it have wholly disappeared, and that methodical inunction with oil and carbolic acid and bathing have been practised.—Your obedient servant,

Hackney, April 23rd, 1881. EDWARD G. GILBERT.

Mr. Loftus Lambert need not be prematurely alarmed on the subject.

A Newsroom Reader.—THE LANCET of July 17th, 1880, contains an article on the subject by the author named. Refer also to a paper read at the Clinical Society, and reported in THE LANCET, Dec. 4th, 1880.

FOREIGN PRACTITIONERS IN FRANCE.

F.R.C.S. would have to submit his diplomas to the Minister of Public Instruction, together with the certificates of course of study. If satisfied, the minister would then authorise his being admitted to five final examinations. See "Hardwicke on Medical Education and Practice in all parts of the World" (Churchills).

SIMPLE METHOD FOR REDUCTION OF DISLOCATION OF SHOULDER-JOINT.

To the Editor of THE LANCET.

SIR,—In recent numbers of THE LANCET I have observed descriptions of numerous mechanical contrivances for the treatment of dislocation of the shoulder-joint, and am thus led to give my own experience in treating such cases.

While admitting the theoretical as well as the mechanical grounds on which the various writers base the merits of their individual contrivances, I cannot help thinking that for the most part they are superfluous and unnecessary in all but very exceptional cases. In a considerable experience in this department of minor surgery, both in hospital and private practice, I have never known the following method of treatment to fail—a method so simple as almost to demand an apology for publishing its details, but one to which I have never seen any reference in the ordinary text-books. It may be called the method of reduction by unaided manipulation, and in no important respects does it differ from the similar means taken for the treatment of dislocation of the hip-joint, while the results are equally gratifying, and the triumph of skill and science over main force is equally apparent. Supposing the left limb to be dislocated, the surgeon standing on the affected side of the patient grasps the limb at the elbow-joint with his right hand, and places the thumb of his left hand on the misplaced head of the humerus. Abducting the limb from the side, and making a fair amount of extension, he now calls away the patient's attention from himself so as to relax the muscular system in some measure, and, taking advantage of this relaxation, he rotates the limb externally, aiding the reduction by, at the same time, pressing with his left thumb on the misplaced head of the bone. The only difference when the right is the affected side is that the operator's hands have to be transposed.

In the last ten cases of dislocation of the shoulder-joint that have come under my care the condition was rectified at the first attempt under the manipulation I have indicated; in eight of the cases without the use of any anæsthetic. In the remaining two, one was in the person of a very muscular man, while in the other the condition had existed for fifteen days, and in neither of these cases could I accomplish the reduction until the patients' muscular systems had been relaxed by chloroform, though I have never found it necessary to push the anæsthetic past this stage; but even in the case in which the dislocation had been neglected for a fortnight I found that manipulation was quite sufficient.

I do not claim any originality in commending this simple method to the profession, but I would say that its simplicity ought to commend itself to everyone, while as to its practical utility in the great majority of cases I think I have a right to speak positively. It is a mistake to suppose that a large amount of muscular energy requires to be expended by the operator in accomplishing the reduction of the dislocation in this way, for, as I said before, it is skill, not force, that will accomplish the desired end; and personally I cannot claim to be possessed of herculean muscularity. The time-honoured procedure of making traction on the limb with the foot in the axilla forming the fulcrum, will no doubt, from its very orthodoxy, always have plenty of supporters, but at best the position which the operator has to adopt is anything but a dignified one, while the method I now indicate and invariably adopt is not nearly so trying or painful to the unfortunate patient, either mentally or physically. I may also add that I have reduced a dislocation of the shoulder by the manipulation method, without any anæsthetic, on the second day, after the foot-in-axilla method had been vainly tried on two occasions under chloroform.—I am, Sir, yours, &c.,

Liverpool, April, 1881. S. RUTHERFORD MACPHAIL, M.B. Ed.

"UNQUALIFIED ASSISTANTS."

WE have received a large number of letters on this subject, raised by "Veritas" in our issue of May 14th. We cannot print a tithe of these communications, but give extracts from some of them.

Mr. Charles F. Rideal, of Thetford, writes:—"It cannot be denied that spirit and self-respect are much wanted in the medical profession, as, indeed, it is in all professions and occupations of the present day, but at the same time such a letter as the one 'Veritas' has contributed to your columns does not in the slightest degree tend to modify the existent evil, but rather aggravates it by the attack upon a class which does not merit his insinuations. I fully agree with him that medical reform has a wide range, but I ask him if he thinks the denunciation of 'unqualified assistants' assists him in any way to narrow its limits or to demonstrate its inner life. In all deference to him, I will undertake to say that out of the twenty medical men who grieve 'Veritas' by employing the ten 'unqualified assistants,' not one of them has granted a certificate of death without having seen the patient; no, the medical practitioner of the day is too careful for that. If this is not so, and it is within the cognisance of 'Veritas,' why does he not, in justice to himself and the profession at large, have the Act of 'law's defiance' sifted through to light, and thereby 'practically' carry out that which he professes to desire—i.e., medical reform? Where will 'Veritas' draw the line as to the term unqualified? This term varies from the 'green youth' leaving school to the man reading for his Final; the latter may be an individual who has obtained 'degrees;' he may have distinguished himself in literature, chemistry, pharmacy, or many other subjects; but purely for the love of the profession he is following may have cast all his previous distinctions aside. 'Veritas' must not forget that all these are included under the heading of 'unqualified.' Owing to the stringent examination required by the Pharmaceutical Society for the qualification of chemists, there is every reason to hope that those who are 'promoted' are in point of 'practical' experience far more advanced in medicine than are the many who literally cannot mix their own physic, but who hold the diplomas of our medical licensing bodies, and are just the very men who are suitable to be drafted into the rank and file of the medical profession, if only for their experience. Let 'Veritas' take the trouble of inquiring from them their experiences of 'unqualified assistants,' and I feel assured that he will bear to the effect that the unqualified man is generally a hard-working, intelligent fellow, who is desirous of advancing himself in every way, and that he is steady, and satisfies his employer's patients."

M.B. Univ. Dub., L.R.C.S.I., writes:—"In your issue of last Saturday 'Veritas' wisely remarks, we need medical reform on the above subject, and nothing short of the total abolition of unqualified assistants ought to satisfy the public and the profession. If you will allow me space to relate my experience, which is the experience of hundreds of thoroughly qualified men, you will, I think, admit I have given a clear proof of the fact that the profession is overcrowded by *unqualified assistants*. Notwithstanding the high degrees I possess (degrees which cost nearly £450 and five years' hard study to obtain), I was two months before I got an assistancy, and then I had to be content with £100 a year and furnished rooms. After remaining two years with my principal, who was invalided, he recovered sufficiently to be enabled to dispense with my services, employing some kind of a dispenser, &c., giving me, however, a most excellent testimonial. For three months, through the medium of THE LANCET and agents, I endeavoured to obtain another assistancy, but failed, except indeed I consider the offer of £80 yearly, out-door a fair remuneration for my qualifications and attainments. I think this matter of unqualified assistants is one requiring the strenuous efforts of the eminent men in the profession to put down; and I maintain they ought to use those efforts on behalf of their poorer and younger professional brethren."

O. U. I. remarks:—"In any legislation for the total abolition of the calling of the unqualified assistant, much consideration and discrimination must be needed, inasmuch as any sudden and arbitrary measure with that object would have the effect of depriving a great many men of their only means of subsistence, and of throwing a large number of families helpless upon the world. 'Veritas' ought to suggest some scheme for meeting such cases of exigence when he propounds as his notion of reform 'that the abolition of unqualified assistants is imperatively demanded in the interests of the public and the profession.' There are scores of young men at the present time pursuing their studies at the various hospitals, who would hardly be able to do so could they not employ a portion of their time as unqualified assistants, in return for board and lodging; and there are hundreds of medical men, now in high repute in the profession, and good position in society, who have raised themselves from the unqualified ranks solely by their own indomitable industry, steadiness, and perseverance. Is it entirely desirable indiscriminately to exclude all such meritorious persons, and to admit to the profession only those who may happen to have a few hundreds of pounds to spare? The second subject touched upon by 'Veritas' is one not in any way affecting assistants of any class, but principals; and I freely admit that the recovery of professional fees by instalments through the medium of a collector must seem a somewhat undignified mode of procedure to those unaccustomed to it. I speak from considerable personal experience when I assert that in many, if not most of the large manufacturing districts, a medical man practising among the operative and labouring classes must either consent to have his outstanding accounts 'collected' or go without three-fourths of the income derivable from such sources. The statement that 'there is no trade conducted on such principles,' does not hold good everywhere. I have seen the same person collecting for a medical man and for tradesmen on the same Saturday afternoon, and receive money for each from the same 'client.'"

PUPILAGE.

An Old Pupil, in a letter too long for insertion, argues strongly against the system of even a short pupilage, either before the commencement of his medical studies, or in the middle of them. He thinks any work the pupil might be called to would be of the nature of unprofitable drudgery, and that he would learn, not the science of medicine, but the art of pleasing and ready prescribing. Even pupilage at the end of the curriculum he thinks would not be more beneficial. "When we consider that a practitioner who has been engaged in professional work away from educational centres for ten years is old in the profession, it is hardly likely that a young man fresh from the latest scientific training can learn much or have much in common with such a practitioner." Our correspondent does scant justice here to the experienced practitioner. He is not likely to be so foolish as to undervalue the knowledge acquired through recent methods by a pupil at the hospital, and from a succession of such pupils as a system of pupilage would imply would be kept *au courant* with advancing science, besides having a clinical experience different altogether from that which a student has gone through in hospital work. Our correspondent admits that the dispensaries in educational centres afford ample opportunities for instructing young men in the practice of their profession. The subject of pupilage is coming up again, and though there will never be a reversion to pupilage in its old form, there is an extensive consensus of opinion in favour of a short pupilage at a more or less advanced period of medical study.

MEDICAL LEGISLATION IN NEW BRUNSWICK.

THE medical profession in New Brunswick is (says the *Canada Lancet*) to be congratulated on having succeeded in getting a Medical Bill through the Legislature this session, which will stop for the future the free trade in medicine which has heretofore existed in this province. A matriculation examination and a four years' course are among the requirements for future registration.

W. T. P. should consult the article on Books in the Students' Number of THE LANCET, published in September last.

Mr. T. H. Moorhead.—Probably any instrument-maker would undertake to supply the respirator.

Lieut.-Colonel Walker should consult the Medical Directory. We cannot recommend particular physicians or surgeons.

Odd Fellow.—We cannot assist our correspondent.

Tricked.—We regret that the tone of our correspondent's letter is so objectionable and some of the statements and references so far from correct that we cannot give it a place in our columns.

"THE BLOOD OF SAINT JANUARIUS."

To the Editor of THE LANCET.

SIR,—Since the marvellous oxygenation and liquefaction of the hermetically sealed blood of Saint Januarius are again reported to have recently taken place at Naples before the Cardinal Archbishop and an august assemblage of the Roman Catholic faithful, I should like to know if any of your readers can inform me whether or not this reported bi-annual miracle has ever been submitted to the ordeal of unbiased scientific inquiry and rational physiological examination.

I am, Sir, yours obediently,

Park-place, Leeds, May 16th, 1881. A. CLARENCE FOSTER.

A NEW TITLE FOR UNQUALIFIED PRACTITIONERS IN THE COUNTY OF DURHAM.

A correspondent, *M.B.*, states that in some of the colliery districts in Durham several men are practising and signing death certificates, using the title M.S., which would at first sight imply master in surgery, but in the case of these gentlemen means simply medical student! This appears incredible. It should be enough to direct public attention to such a proceeding to stop it.

AMERICAN WOMEN DOCTORS.

FROM a pecuniary point of view the choice of a medical career by certain ladies in America would appear not to have been a happy one. The results of an inquiry by the Dean of the Woman's Medical College in Pennsylvania show that three-fourths of the number (180) of graduates of that college who responded to appeals for information on the point are not earning more than three thousand dollars a year each, while three only have gained an independence by their practice.

Mr. Henry Bingham.—We believe it is customary for the bodies examining for diplomas in sanitary science to recommend the works to be studied. Write to the proper officer in Cambridge, and obtain the suggestions as to the studies for the certificate of that university, or to the registrar of the body selected.

Mr. W. Barr.—There is nothing special about the operation, which is one that is performed by ophthalmic surgeons in suitable cases.

THE TREATMENT OF PSORIASIS BY TURPENTINE.

To the Editor of THE LANCET.

SIR,—The treatment of psoriasis by turpentine, as stated by Dr. Crocker in this week's LANCET, is a valuable addition to our therapeutics in this often obstinate cutaneous disease, but requires more extensive trial. Your correspondent seems to think that its odour is its chief objection, but this can be easily remedied by the use of an equal part of the essential oil of lemons, which in itself is chemically identical with that of turpentine. The essential oil has the effect of destroying the terebinthinate odour without impairing its efficacy.

I am, Sir, yours truly,

Mildmay-park, N., May 10th, 1881. JAMES WILLIAMSON, M.D.

THE NATIONAL VACCINE ESTABLISHMENT AND ITS LYMPH.

To the Editor of THE LANCET.

SIR,—After reading the correspondence in THE LANCET of May 21st about the bad quality of the lymph obtained from the National Vaccine Establishment, I find, on looking over my register, the following note opposite some unsuccessful cases, which cases I had relied on for future supply—viz., on March 26th, 1880:—"Unsuccessful; lymph obtained from National Vaccine Establishment; bad as usual." This note in the register went before the guardians of our union and the Government inspector. I may add I have not since applied for lymph from the National Vaccine Establishment.—I am, Sir, yours faithfully,

Bloxham, Oxon, May 23rd, 1881. J. COLEGRAVE.

To the Editor of THE LANCET.

SIR,—During the past fourteen years I have at different times had both points and tubes of vaccine lymph from the National Vaccine Establishment, and, in justice to this institution, think it only fair to state I have never yet failed with the lymph supplied by them. Roughly speaking, I should say I have been furnished with lymph from this establishment at least twenty times. I am, Sir, yours faithfully,

Cheetham, Manchester, May 23rd, 1881. J. WESTMORLAND.

To the Editor of THE LANCET.

SIR,—I am sorry to say I can fully endorse the complaint made by "A Public Vaccinator" with regard to the lymph from the National Vaccine Establishment. I have recently had two supplies, neither of which had the slightest effect.—I am, Sir, yours, &c.,

April 18th, 1881. ANOTHER PUBLIC VACCINATOR OF 40 YEARS' STANDING.

To the Editor of THE LANCET.

SIR,—In reply to the question of your correspondent, "A Public Vaccinator," I can say that I have generally found the lymph supplied by the National Vaccine Establishment useless—that is to say, I much more frequently fail than succeed in obtaining vesicles from it, however freely it may be used. I cannot help thinking that this lymph is largely diluted, and thus the National Vaccine Establishment becomes but another sham. I am, Sir, yours faithfully,

May 17th, 1881. A GENERAL PRACTITIONER.

To the Editor of THE LANCET.

SIR,—In answer to the query of "A Public Vaccinator," I may say that twelve cases of primary vaccination in the East Hertford district entirely failed when I used the lymph supplied by the National Vaccine Establishment. When I used the lymph supplied me by a friend, and taken from his own cases, success followed at once.

I am, Sir, yours, &c.,

May, 1881. QUALIFIED ASSISTANT CERTIFIED TO VACCINATE.

UNQUALIFIED ASSISTANTS.

A Country G.P. justifies the employment of unqualified practitioners, under strict supervision, by qualified men, and thinks them preferable often to young men who have just passed their examinations.

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